CB HORIZONS

APRIL 1962
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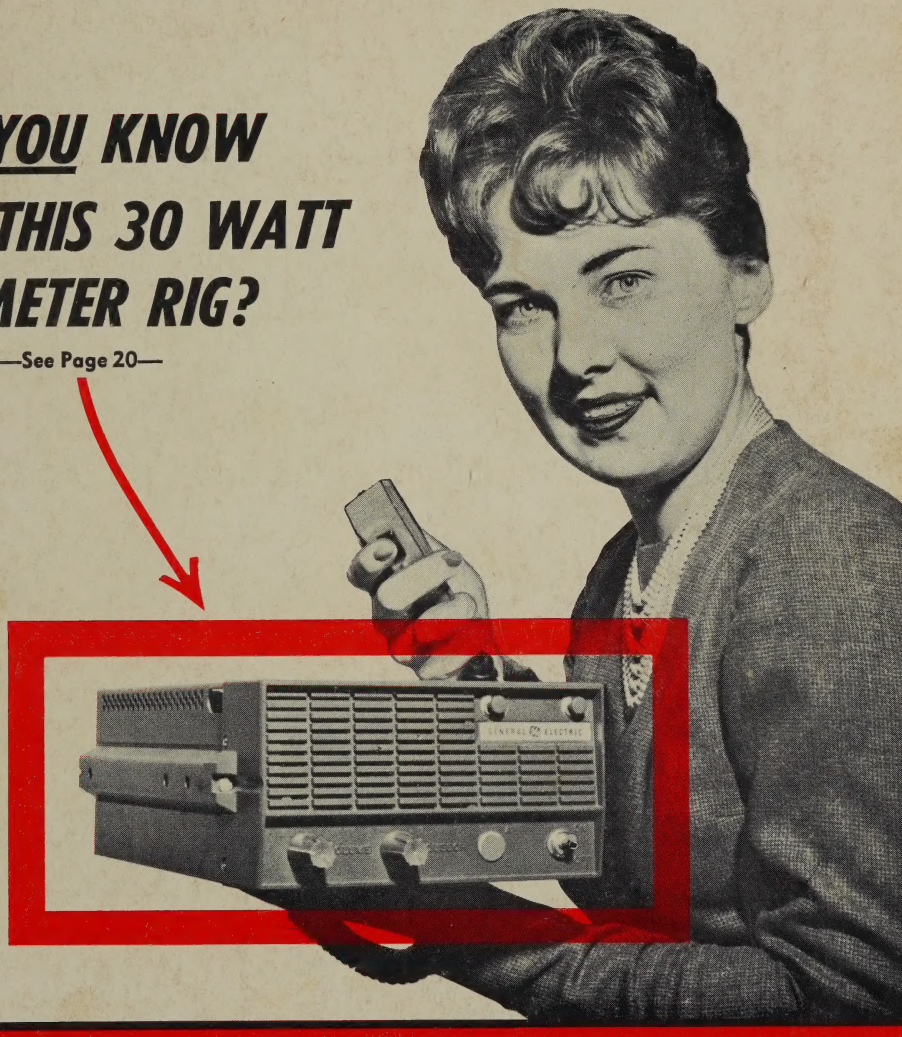
—See Page 20—



THE CITIZENS BAND RADIO MAGAZINE

IN THIS ISSUE—

4 Easy 1-Evening CB projects — Add Crystal Spotting — Build a Rhombic "Dream Antenna"—How To Buy Used Equipment—Convention Directory — Win A CB Rig: FREE!—And much, much, more! !

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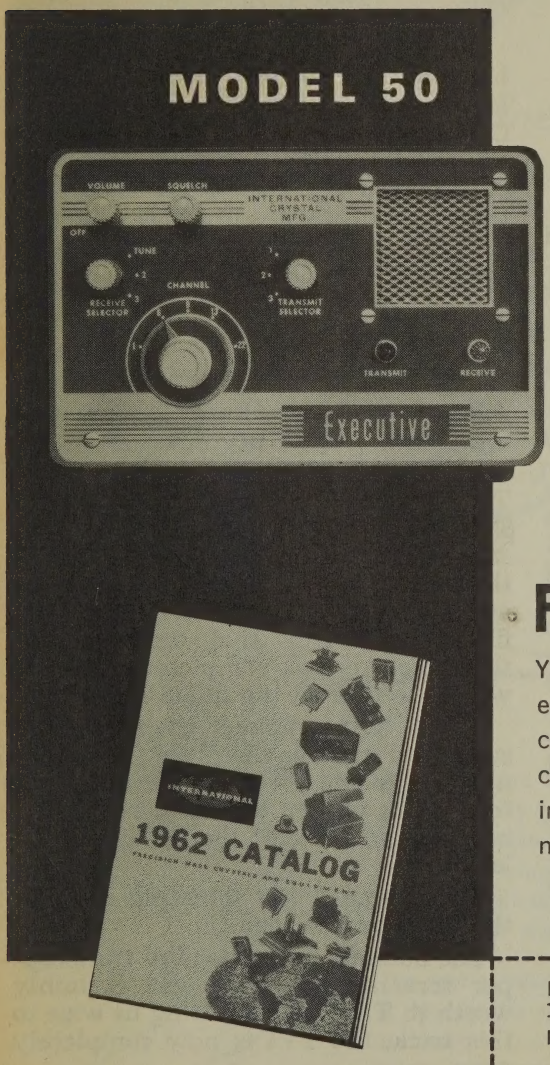

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OZZIE'S MAIL-BOX

Dear Ozzie

I heard about a national group called the Confederate Citizens Band Corps—do you know anything about them or where I may contact them?

Sam Dowdy, 14Q0754
Yakima, Wash.

As a matter of fact we have, Sam Last summer we received a mailing from a person or persons calling themselves by that name. The pitch was that for 5 bucks we could become a member and get a pocket card, wall certificate, sunvisor sleeve, decal, and a book on how to choose an antenna (Antenna Specialtists gives away these books free). They also announced that in the near future they would have cuff links, ash trays, billfolds, and other decorative nonsense. The only apparent purpose of the organization seemed to be to sell novelties.

Since their slogan was "Together we stand—Divided we're lost," we decided that we didn't care to stand anywhere near them with their ashtrays and billfolds, hoping that they soon would "get lost."

Since the sales pitch material bore no CB'ers name or callsign, only a box number, we filed it in the wastebasket. Guess not too many other CB'ers decided to stand with them, in all of our many reader surveys, we haven't seen one single CB'er who claimed to be a member.

Ozzie

Hey Oz—

I just returned from abroad (after several years) and picked up a copy of your 1962 CB CALLBOOK/HANDBOOK only to find that the listings are for only "Q" and "QA" CB'ers. What about us "W" stations? Are there any lists of "W" stations?

James Acheson, 19W9076
(ex-18W7759)
New York, N. Y.

You must have been in Tibet, Jim, because any active CB'er probably knows about International Crystal's CB Callbooks which contain listings of all CB'ers with "A," "B," and "W" callsigns. They cost $3.95 each, and there's 3 of them—pre-1960, January through June, 1960, and July through December of 1960.

Ozzie

Dear Ozzie—

Wanted to let you know of some good luck I had with a CBH idea.

A neighbor of mine has a 1954 Philco TV set with a 26.6 mc IF. Talk about TVI, well they *really* had it. As you suggested, (November, 1961, issue) they wrote to Philco with the problem and Philco sent them a *free* high-pass filter. Alas, even that didn't help—their picture was completely haywire when we pushed the mike button.

So we "gift wrapped" the set, as you suggested in November. We put aluminum foil inside the set on the sides and top, using copper screen wire on the bottom and back of the set for ventilation.

We grounded the shielding and left the filter on the lead-in.

The nominal outlay for the (foil, copper screen, glue, etc) was certainly worth it. Thanks for putting us wise to this trick, the TVI is now completely gone.

Larry Cleaver, 3Q1401
Philadelphia, Pa.

OK, Larry, glad we could be of service.

Ozzie

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APRIL 1962
VOLUME 2 - NUMBER 4

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TABLE OF CONTENTS

FEATURES

SHORT AND SWEET
4 Simple 1-evening CB construction projects 8

WHEN JOHN GLENN WAS PUT INTO ORBIT
CB'ers Helped Call The Shots at Canaveral 14

YOU ASKED FOR THIS ONE
Add Crystal Spotting to Your Rig 18

COVER STORY—
You CAN Run 30 Watts on 11 meters 20

THE DREAM ANTENNA—PART II
How To Build a Rhombic 24

THE RULES OF THE GAME
So You Want To Buy A Used CB Rig? 28

APRIL FOOL SPECIAL
CBH Readers' Guide To Used CB Equipment 29

THOSE NUVISTORS AGAIN
Hooking Up Nuvistor Preamps 30

CBH EDITORS TELL ALL
Who We Are—And How We Got This Way! 36

THE BIG NCRL CB CONVENTION
Who Will Be There 38
Where To Find Them 39

EDITORIAL COMMENTS ON A TIMELY SUBJECT
Greatest Thing Since The Edsel? 49

DEPARTMENTS

OZZIE'S MAILBOX 4
CB TECH TALK 18
ANTENNA TOPIX 24
GAR'S GABBINGS 34
CBL CARD OF THE MONTH 35
CB SHOWCASE 40
CBH LAB REPORTS 41
CCM REPORTS 43
WIN A FREE CB STATION 44
TK ON CB 49
CLASSIFIED 51
D.C. FLASHES (Late FCC News) 53

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COVER: A General Electric 30 Watt 11 meter rig!

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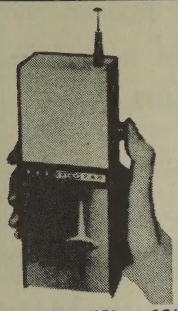

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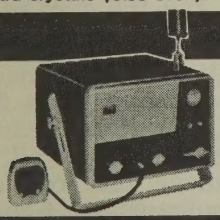

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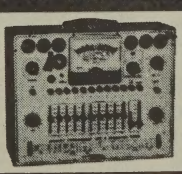

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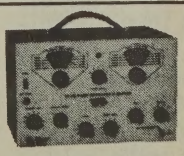

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short AND SWEET!

4 Simple One-Evening CB Construction Projects and How to Build Them!

By JIM KYLE, 10W0901
CBH Technical Editor

Summertime's approaching, with warm days and long evenings. What better time to turn your garage into an electronic workshop and build some of your own station accessories?

"But I can't build anything!" you may answer; relax, you don't need experience for these four fast projects. Each of them can be completed in a single evening, with minimum cash outlay for parts and maximum improvement in station performance.

But before you start, unless you *have* done construction before, it wouldn't hurt to take a quick review of construction practices. None of them are difficult, but they do include some important points.

Heading the list is the technique of proper soldering for electronic connections. You may be an expert tinsmith, but soldering in electronics is a technique all to itself. The required tools and materials are a soldering iron (the inexpensive pencil-type irons are handy and convenient; use the 37½-watt tip for general work) and solder. When you buy solder, be sure to get the rosin-core kind; if you have a choice of grades, you'll find that "60-40" is easiest to work with.

To learn the technique, plug in the iron. After it comes up to temperature (you can tell this point because it will then melt solder rapidly into a smooth-flowing liquid, rather than into a semi-soft paste as a too-cold iron does), wipe the tip on a discarded Turkish towel or other coarse cloth. If this is the first time you've used the iron, "tin" the tip by coating it with solder and wiping it clean once more.

With the iron hot and tinned, take some scrap hookup wire and practice soldering joints. The two secrets of perfect soldering are (1) make sure both connections are completely clean (brighten them with sandpaper if necessary) and (2) make sure the wires themselves are hot enough to melt the solder. The professional way to make a perfect joint is to first clean the wires, then lay them in contact (twisting them together is unnecessary, and makes later repair more difficult). Next, pick up a drop of molten solder on the tip of the iron and use it as a "lubricant" between the iron and the joint. Don't place the tip directly on the joint; instead, put it on one wire about 1/16 inch away from the joint and let the heat transfer through the "lubricating" drop and the wire up to the joint itself.

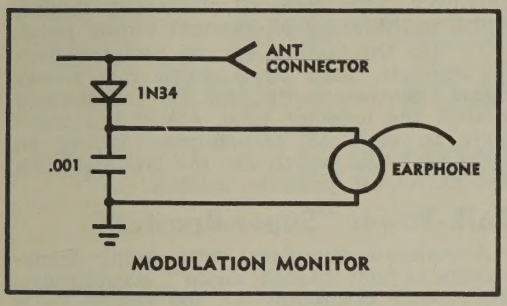
When the joint itself is hot enough to melt the solder so that it can flow in, apply a small amount of fresh solder to it and let it flow into all the crevices. Then remove the iron and let the joint cool undisturbed. If either wire moves while the solder is still soft, you'll have a "cold-solder" joint which will almost inevitably cause later troubles. When the solder in the joint suddenly loses its shiny fluid appearance and turns dull, the joint is hard. If you use 60-40 solder, this hardening will take place almost instantly; with either 70-30 or 50-50 grades, it will be a slower process.

Aside from the soldering iron, the only other tools essential for construction of these projects are a small pair of side-cutting pliers (usually called

"dykes") and a small pair of needle-nose pliers for positioning small parts. A pocketknife comes in handy, too, for stripping insulation from the ends of wires. Ready? Let's go!

Modulation Monitor

The simplest of our four projects—yet a most essential item in obtaining perfect station operation—is a modulation monitor.



MODULATION MONITOR

This device connects between the output terminal of your transceiver and the antenna itself, and lets you hear (via an earphone) exactly what your outgoing signal sounds like.

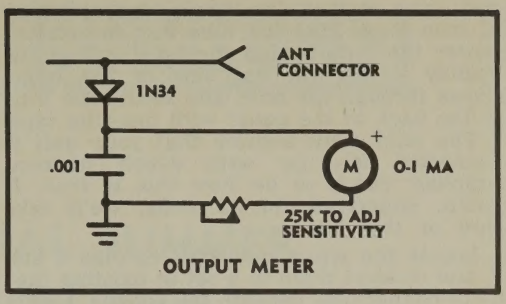
Only three parts are necessary: a type 1N34 (or 1N34A, 1N38B) crystal diode, a .001 wfd. disc ceramic capacitor, and a *magnetic* or *dynamic* earphone (a crystal earphone *won't* work).

Connect the anode lead of the diode (the end *away* from the broad stripe around the body) to one lead of the capacitor, and connect the other lead of the capacitor to the chassis of your unit. Connect the cathode (the other) lead of the diode to the center terminal of your transceiver's antenna connector. Connect the earphone leads across the capacitor as shown in the schematic. That's all there is to it. Now, listen in the earphone while talking—or better, since your own voice will sound abnormal to you through the earpiece, while someone else talks, over your rig. The effect of any adjustments can be detected immediately.

Maximum-Output Meter

This device, designed into the Heath CB-1 but adaptable to any unit, simplifies tuning up to any antenna. Although it won't indicate your actual output power in watts, it will show you directly an indication of your relative power output as you tune the rig or make antenna adjustments.

The parts list and construction details are identical with those for the modulation monitor except that an inexpensive micro— or milliammeter replaces the earphone, to give you a visual indication of power output. For maximum utility, you can wire the diode and capacitor permanently into your rig and bring the meter-or-phone connection out to an added jack, so that you can connect either a meter or an earphone and have both instruments.



OUTPUT METER

The recommended meter is a 0-500 microammeter, but a 0-1 milliammeter will also work. If the meter pointer tends to go off-scale, add a 10,000-ohm potentiometer in series with the meter as a sensitivity adjustment.

In use, the meter needle will deflect to the right when you switch the rig to TRANSMIT. Adjust for maximum deflection to the right, and you will have maximum power output.

You can also use the meter to get a rough check of modulation. When you talk into the mike at a normal level, the needle should flicker. It will flicker both above and below the non-talking position; however, it will go farther in one direction than in the other. If it tends to go upscale, all is well. If the reading goes downscale, your rig is afflicted with "downward modulation" and should be checked thoroughly.

Electronic Tuning Eye

If, like many units, your transceiver's receiving section is tunable, you'll welcome this tuning eye which shows you when you are tuned exactly on channel. It can also be used to peak up receiver adjustments.

The parts required are an Amperex type EM-84 tube, a 9-pin socket for it, a 1-megohm 1-watt composition resistor, and some hookup wire. If your set is designed for use on a 12-volt battery, you'll also need a 25-ohm 2-watt composition resistor.

This project is *slightly* more complex than preceding pair, but not much so. The first step is to prepare the tube socket. To do this, solder a short wire to pin 7 (the pins are numbered in a clockwise direction, starting from the left, as you look at the bottom of the socket). Connect the other end of this wire, which should not be more than ½ inch long, to pin 9; also, connect one lead of the 1-megohm resistor to pin 9 and solder the connection. Connect the other end of the resistor to pin 6 but don't solder it yet.

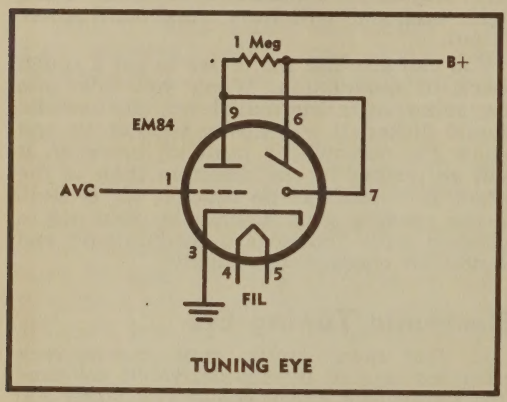
Prepare five lengths of wire about 12 inches long by stripping the insulation for ¼ inch from one end of each. Connect one of these to pin 6 and solder the connection; solder the other wires to pins 1, 3, 4, and 5, respectively.

Now, find the place on your unit's panel where you want to mount the tuning eye

and cut a rectangular hole ¼ inch high by ¾ inch long. Plug the tube into the socket, center the tube behind the hole so that the display screen (at one side of the tube) shows through the hole, and secure the tube to the back of the panel with masking tape.

The next steps assume that your unit is connected for use with 6-volt filament supplies; *check to be sure this is true.* If you're connected for 12 volts, we'll take care of this later.

Locate the wires connected to pins 4 and 5, and connect them to a set of existing filament connections beneath the chassis. Likely places are to pins 3 and 4 of either a 6BA6, 6BE6, 6AL5, or 6AQ5. Locate the main high-voltage supply point (a good place to find it is at pin 6 of the AF output 6AQ5, common to many sets) and connect the wire from pin 6 of the tuning eye to this point. Connect the wire from pin 3 to any convenient ground. Solder all connections as they are made.



TUNING EYE

You still have one wire to connect—the lead from pin 1. This must be connected to the receiver's AVC line. This line can easily be identified because it is the point to which the black wire from the first IF transformer (usually called T1) is connected. If your T1 has no wires, just terminals, find the one which has connected to it a capacitor going to ground, and a *high-value* (yellow stripe around its center) resistor. The end of the resistor away from the transformer goes to the AVC line, where you should connect the wire from pin 1.

If, after you make the connection and try the unit out, the shadow covers the entire screen and fails to narrow on a strong signal, you probably have connected to the wrong terminal of the transformer (the mixer B+ connection in many sets has a similar appearance, but with a smaller-value resistor). Move your connection to the other resistor and try again.

If your unit is wired for 12-volt operation, you must make one modification to the instructions above. When connecting the wires from pins 4 and 5, you must add the 25-ohm resistor in series. Find a 12AX7, 12AU7, or 12AT7 tube in your set. Connect the wire from pin 4 to pin 4 of this tube, the 25-ohm resistor from pin 5 to pin 9 of this tube, and the wire from pin 5 of the tuning eye to pin 9 of this tube also.

When you have finished all wiring, and checked to make certain it is correct, turn the unit on. The display screen of the EM84 tube should glow bluish-white as the set warms up, and you should find a wide shadow in the center of this glowing area. Tune to a signal; the shadow should become narrower. The point of minimum shadow width is the exact on-channel tuning point.

To use the tuning eye to peak receiver adjustments, tune in a weak but steady signal. Starting with the IF transformer nearest the detector tube, adjust the trimmers in each IF transformer (using an alignment tool which fits the trimmer) for the narrowest possible shadow.

Talk-Power "Super-Booster"

A common complaint with many transceivers is "not enough audio"; occasionally, the reverse complaint — "too much" — is heard.

For many reasons, most manufacturers don't include a means of adjusting modulator audio level in their gear. This poses no problem when the recommended mike is used, and if your voice is "normal"—but if you change mikes, or if your voice is either unusually soft or louder than average, you may have troubles. This one-tube device added between the microphone and the mike jack will solve these problems.

This is the most complex of our four projects, which is why we saved it until last. However, despite its increase in complexity, *it's still simple to wire and shouldn't take you over an hour to complete.*

You'll need a type 12AU7 tube (don't substitute!), a 9-pin socket for it, a carbon microphone (surplus telephone F-1 buttons are ideal and inexpensive), two 15,000-ohm 1-watt resistors, a .001 mf disc ceramic capacitor, a .01 mf 400-volt paper capacitor, a 1-megohm "audio taper" volume control, an aluminum box large enough to house the unit (we used a 4x4x2 but a smaller one would do), shielded wire to connect to the transceiver microphone input, and a plug which will fit the mike jack of your rig. Some hookup wire completes the list.

Start by drilling or punching a ¾-inch hole in the box to accommodate the tube socket. Drill two ⅛-inch holes for the mounting screws, and attach the socket with 4-40x¼ inch screws. Put a soldering lug under each mounting screw, beneath the chassis, to provide handy ground connections when wiring. Next, drill a ⅜-inch hole for the volume control, and mount the control in it with the hardware provided with it.

Begin the actual wiring by installing the two resistors. One is connected between pins 1 and 6 of the tube socket (don't solder either end yet); the other goes from pin 8 to ground (again, don't solder). Next, con-

(*Continued on Page* 13)

COMING IN CB HORIZONS!

TWO VERY SPECIAL SUMMER AND VACATION TIME MOBILE – BOATING – FIXED STATION ISSUES

***IN MAY (In the mails April 10)**

 # Inland Waterways Take to CB Radio

 # Rum Runners Use CB Radio!

 # Mobile Danger Points
A point by point check-out of your mobile installation for better summertime mobiling

 # Chicago Convention Report
Couldn't Make It To Chicago? Read all about what happened here.

 # CBH Exclusive—
An interview with a top Washington official on CB. It sizzles!

IN AN EARLY ISSUE OF CBH

Touring the USA via CB radio . . . the local laws, who you can and can't talk to . . . how to locate help in an emergency.

(tear out and airmail to CB Horizons)
P. O. BOX 3150, MODESTO, CALIFORNIA

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DEAR CBH: I have checked off the proper line indicating how many bonus issues I am entitled to receive.

. . . . I am enclosing $4. for the next 15 issues of CB Horizons (a $5.20 value). **I am mailing this card and my check prior to midnight March 22.**

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. . . . I am enclosing $4. for the next 12 issues of CB Horizons. **I am mailing this card and my check after April 4.**

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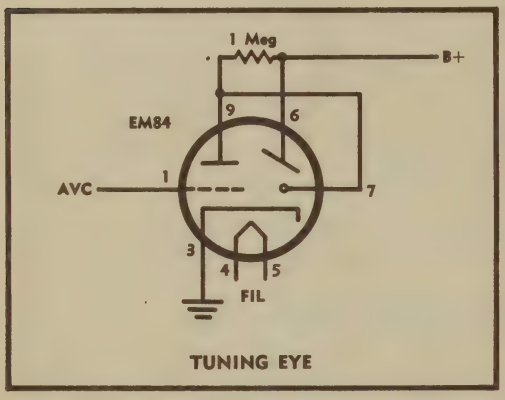
and cut a rectangular hole ¼ inch high by ¾ inch long. Plug the tube into the socket, center the tube behind the hole so that the display screen (at one side of the tube) shows through the hole, and secure the tube to the back of the panel with masking tape.

The next steps assume that your unit is connected for use with 6-volt filament supplies; *check to be sure this is true.* If you're connected for 12 volts, we'll take care of this later.

Locate the wires connected to pins 4 and 5, and connect them to a set of existing filament connections beneath the chassis. Likely places are to pins 3 and 4 of either a 6BA6, 6BE6, 6AL5, or 6AQ5. Locate the main high-voltage supply point (a good place to find it is at pin 6 of the AF output 6AQ5, common to many sets) and connect the wire from pin 6 of the tuning eye to this point. Connect the wire from pin 3 to any convenient ground. Solder all connections as they are made.



You still have one wire to connect—the lead from pin 1. This must be connected to the receiver's AVC line. This line can easily be identified because it is the point to which the black wire from the first IF transformer (usually called T1) is connected. If your T1 has no wires, just terminals, find the one which has connected to it a capacitor going to ground, and a *high-value* (yellow stripe around its center) resistor. The end of the resistor away from the transformer goes to the AVC line, where you should connect the wire from pin 1.

If, after you make the connection and try the unit out, the shadow covers the entire screen and fails to narrow on a strong signal, you probably have connected to the wrong terminal of the transformer (the mixer B+ connection in many sets has a similar appearance, but with a smaller-value resistor). Move your connection to the other resistor and try again.

If your unit is wired for 12-volt operation, you must make one modification to the instructions above. When connecting the wires from pins 4 and 5, you must add the 25-ohm resistor in series. Find a 12AX7, 12AU7, or 12AT7 tube in your set. Connect the wire from pin 4 to pin 4 of this tube, the 25-ohm resistor from pin 5 to pin 9 of this tube, and the wire from pin 5 of the tuning eye to pin 9 of this tube also.

When you have finished all wiring, and checked to make certain it is correct, turn the unit on. The display screen of the EM84 tube should glow bluish-white as the set warms up, and you should find a wide shadow in the center of this glowing area. Tune to a signal; the shadow should become narrower. The point of minimum shadow width is the exact on-channel tuning point.

To use the tuning eye to peak receiver adjustments, tune in a weak but steady signal. Starting with the IF transformer nearest the detector tube, adjust the trimmers in each IF transformer (using an alignment tool which fits the trimmer) for the narrowest possible shadow.

Talk-Power "Super-Booster"

A common complaint with many transceivers is "not enough audio"; occasionally, the reverse complaint — "too much" — is heard.

For many reasons, most manufacturers don't include a means of adjusting modulator audio level in their gear. This poses no problem when the recommended mike is used, and if your voice is "normal"—but if you change mikes, or if your voice is either unusually soft or louder than average, you may have troubles. This one-tube device added between the microphone and the mike jack will solve these problems.

This is the most complex of our four projects, which is why we saved it until last. However, despite its increase in complexity, *it's still simple to wire and shouldn't take you over an hour to complete.*

You'll need a type 12AU7 tube (don't substitute!), a 9-pin socket for it, a carbon microphone (surplus telephone F-1 buttons are ideal and inexpensive), two 15,000-ohm 1-watt resistors, a .001 mf disc ceramic capacitor, a .01 mf 400-volt paper capacitor, a 1-megohm "audio taper" volume control, an aluminum box large enough to house the unit (we used a 4x4x2 but a smaller one would do), shielded wire to connect to the transceiver microphone input, and a plug which will fit the mike jack of your rig. Some hookup wire completes the list.

Start by drilling or punching a ¾-inch hole in the box to accommodate the tube socket. Drill two ⅛-inch holes for the mounting screws, and attach the socket with 4-40x¼ inch screws. Put a soldering lug under each mounting screw, beneath the chassis, to provide handy ground connections when wiring. Next, drill a ⅜-inch hole for the volume control, and mount the control in it with the hardware provided with it.

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(*Continued on Page* 13)

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Use This Card—SUBSCRIBE TODAY—For May Issue

10,000 1962 CALL-BOOKS NOW AVAILABLE

The 1962 CB Call-Book From Horizons went on sale February 10th. On March 1 all 20,000 copies were sold out!
Our printer has prepared an additional 10,000 copies and these are now ready for shipment. Order your copy today while copies of this most-valuable-ever CB reference book are still available!

Call-Book Order Form

YES—send my copy of the 1962 CB Call-Book Handbook. I want a gander at those 80,000 "Q" series calls listed, the special technical section, and listing of local monitoring channels. **. . . . I am enclosing my check or money order for $3.95.**

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Airmail today to: CB CALL-BOOK
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YES—Now that the first monthly issue of the Call-Book Supplement is available, I realize that I can't live without it! **Put me down for all of the 1962 issues** of the Monthly CB Call-Book, which lists all of the brand new calls on the air.

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YES—send me my big two-color 17 by 26 inch Wall-Map showing the brand new KBA-KJB Citizens Band call-areas.

. . . . Enclosed $.50 for one (1) large wall map (No stamps).

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. . . . Enclosed $5.00 for 15 large wall maps (no stamps).

Name ..... **Call** .....

Address .....

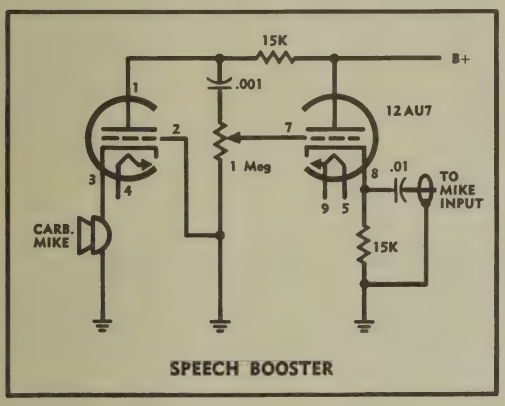
Town/City ..... **State** .....

Airmail today to: CB MAPS
P.O. Box 3150, Modesto, California

nect the .001 mf capacitor from pin 1 (solder this now) to the extreme right-hand terminal (looking at the back of the control, with the terminals up) of the volume control. Solder this connection also.

Run a wire from the center terminal of the volume control to pin 7 of the tube socket, soldering each end. Connect another wire from the left-hand terminal of the volume control to pin 2 of the tube socket, and run this wire on to one of the ground lugs. Solder it at all three places. Connect one lead from the .01 mf capacitor to pin 8 of the tube socket, and solder the connection.

Now prepare a 5-wire cable about two feet long (5-conductor intercom cable is excellent) by stripping the insulation from each end of each wire for approximately ¼ inch. Connect the booster ends of the wires to pins 4, 5, 6, and 9 of the tube socket, and solder. The left-over wire goes to ground; don't solder it yet.



SPEECH BOOSTER

Take the shielded cable and connect it to the microphone plug in the same manner your existing mike cable is connected. At the free end, connect the center conductor to the other lead of the .01 mf capacitor in the booster, and connect the shield to the same ground lug to which the resistor is connected. Connect the left-over wire from the preceding paragraph to this same point and solder the connection.

The only remaining construction step is to connect one lead from the carbon microphone to pin 3 of the tube socket and the other microphone lead to ground. Solder both connections.

To connect to your transceiver, locate a type 12AU7, 12AT7, or 12AX7 tube in your unit. Connect the wires from pins 4, 5, and 9 to the corresponding pins of this tube's socket in your unit. Connect the wire from pin 6 to any convenient B+ source (consult the schematic of your own set) and the ground wire to any handy ground lug in the transceiver. Plug in the microphone connector.

Before using the unit on the air, it must be adjusted. Remember, *you now have nearly 100 times the talk power you had before*, and if the booster's volume control is turned up too high, you'll overmodulate so badly that nobody can read you (and besides, such operation is illegal).

To adjust the unit, arrange with a distant (at least two miles away) station; transmit a "countdown", starting with the booster's volume control turned all the way "off" and increasing slowly to about half-way "on". Keep track of the steps as you increase the setting. The listening station should report that you had no audio at first, and faded in gradually. After reaching a maximum of volume and clarity, your audio should have begun to go "mushy" and distorted. The proper operating point, of course, is the point at which you had the best volume and clarity but were still not "mushy". The distortion indicates the beginning of overmodulation. You should mark this point and never exceed it in operation.

If you have built the modulation monitor described earlier in this article, you can adjust the audio by yourself. Just talk into the mike while listening to the monitor, and adjust volume until it is as loud as possible but still clear. However, a final on-the-air check is still recommended, since slight distortion in one's own voice is difficult to detect.

10-7

BUILD YOUR OWN

CB Equipment With These

PARTS KITS

for projects described in CBH

CBH-2	Mike Preamplifier (Mar., page 44)	$3.49
CBH-3	Nuvistor Preamp (Mar., page 14)	$7.49
CBH-4	Modulation Monitor (this issue, page 9)	$2.69
CBH-5	Maximum-Output Meter (this issue, page 9)	$6.98
CBH-6	Combination of parts for both CBH-4 and CBH-5	$9.49
CBH-7-6	Tuning Eye (for 6 volts) (this issue, page 9)	$2.69
CBH-7-12	Tuning Eye (for 12 volts)	$2.89
CBH-8	Talk-Power Booster (this issue, page 10)	

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All parts, chassis box, hookup wire, and solder included. The only other things you need are the magazine and your tools. California residents include 4% sales tax.

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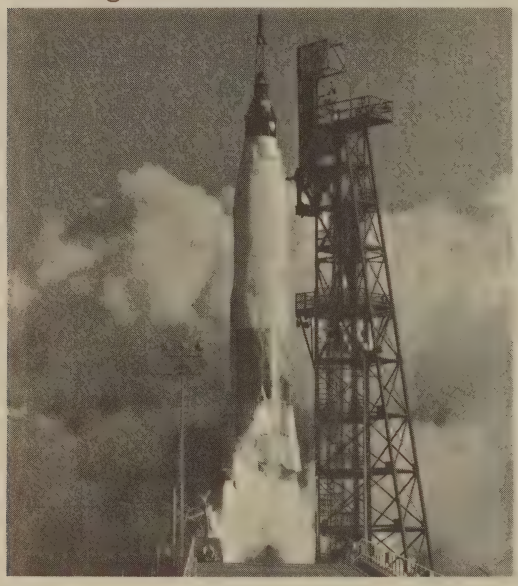
Telephone DI 6-8353, Area Code 213

CB'ers Call The Shots At Canaveral

By **HUGH PINNEY, 7Q0523**

". . . 10 - 9 - 8 - 7 - 6 - 5 - 4 - 3 - 2 - 1 - 0 - Ignition — LIFT OFF!"



Those were the words that came over CB units—Ch. 16, as the giant Atlas roared off the pad at Cape Canaveral—carrying Astronaut John Glenn into space!

The Cape Canaveral Citizens Band Club has been in on many exciting events, assisting wherever possible, but the biggest opportunity came with the scheduled history-making space flight of Col. John Glenn at Cape Canaveral, Florida, on February 20, 1962.

Let's start at the beginning: An old friend, Jack Young, manager for the Southern office of UPI, Atlanta, Georgia, was explaining to me the set-up involved in covering this launch. He said that his photographers (UPI) would be spread out over a wide area, and was wondering just how he could co-ordinate and direct his photographers, what with all the excitement, confusion, traffic jams, etc. The telephone lines would be constantly busy, so he would hardly get a word in edgewise! Jack would need to keep in touch with the press site at the Cape; the UPI beach house (midway between the Cape and the Holiday Inn), Cocoa Beach (UPI headquarters) — also 12 miles off the shore from the Cape, a large cabin cruiser, with photographers who would stand by in case of an emergency, or "abort". Contact with this boat was most important! It took me about 10 milli-seconds to solve his problems of communications. CB Radios! I explained to him how our club was able to set CB equipment and provide mobile units for any emergency need. Jack was much impressed.

I called Howie Gibson, 7Q1840, Club President, and told him of Mr. Young's problem. Howie immediately volunteered the club's services, and set up a meeting with Jack to find out just what was needed. A preliminary talk revealed that several units would have to be installed, as "fixed" type stations, one at Holiday Inn, for base operations, known as 7Q0523 (UPI) control. A unit was located at United Press Beach House, midway between the Holiday Inn, Cocoa Beach and the Cape. The real problem was the installation on the cabin cruiser, which required a special antenna system. RCA Mark VII's were used throughout this assignment. These units were provided by CB'ers who gave their time willingly in the installing and operation of

Dan McKain—19Q4538 from Cincinnatti, Ohio, a UPI Photographer, is one of the many field photographers pulled into the area for this historic space flight. Dan, besides being a photographer, is an ardent CB'er. Dan uses CB units exclusively, for communications in his work. He is shown here, checking in with UPI Hqts. from the communications center, at the UPI Beach House. (All Photos UPI)

the unique network. The first order of business was the erection of a beam antenna, at the Holiday Inn.

Gus Haynes, 7Q1386, Hugh Pinney, 7Q0523, made the installation. At the beach house, Carl Wolary, 7W1689, and Howie Gibson, 7Q1840, set up a Magnum-27 for the "midway" station, on the roof. Hugh Pinney, 7Q0523, took care of the unit on board the boat.

Channel 16 was selected to handle all UPI traffic — no one else uses this channel in this area.

Walkie-Talkies, furnished by Charlie Buckner, 7W1966, were used to coordinate activities of roaming photographers on the beach, where many spectator type pictures were made.

Ten postponements for the orbital flight were made, due to bad weather, technical difficulties, etc. But the Cape Canaveral CB'ers stood by, some doing without their CB units, for as much as three weeks, so that they would be "ready-to-go", in the event of an early re-schedule.

On Tuesday, February 20 the "blast

NEW... The World's most advanced 11 meter two-way radio...

General is in command with the new MC 5

3.25 watts minimum output. • New High Power Modulation system for unparalleled "Talk-Power." • New Zener Diode shunt noise-clamp and series gated limiter circuit for highest noise limiting ever achieved. Largest Power supply ever built for CB use. • New ultra-low drift oscillators for unsurpassed stability. • New Hi-level Tone-Signal. • 15 watt construction. • Net Price including microphone and crystal . . . $199.95. 90 day warranty. F.O.B. Burbank, California. • **FREE—Write for schematic and complete technical data.**

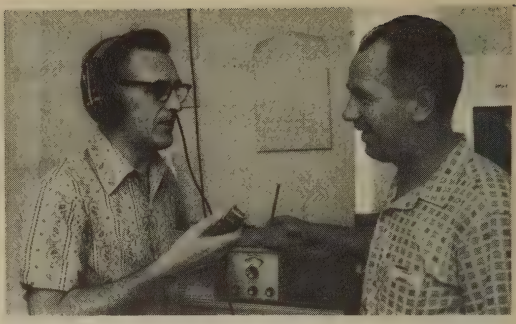
Under present rules part 19.32 the FCC does not provide for more than five (5) watt input in the Citizens Radio Service (26.965-27.225 MC Band).

Your dealer or write:

General Radiotelephone Company, DEPT. E5

3501 Burbank Boulevard, Burbank, California

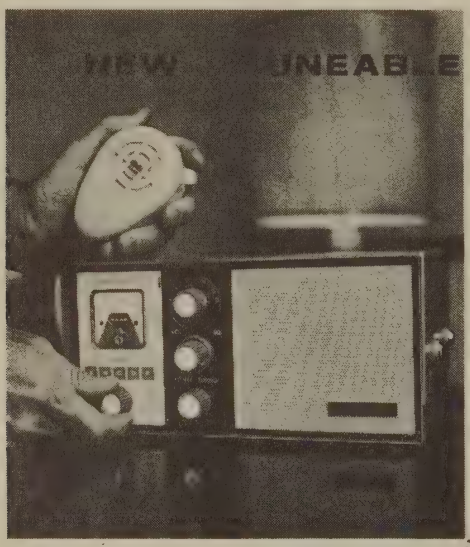
"Bird Watchers"—Gus Haynes, (7Q1386) (L) and Doug Martin, UPI Photograher (with Camera) fire away at Col. Glenn, on film of course, as the missile carries him aloft into orbit. Gus is in the Air Force, (A-1st) stationed at Patrick Air Force Base, Fla. He is very active in CB Activities, as you can see here—keeping Doug up on the "Count", with his mobile rig.



Jack Young, Southern Mgr. for UPI, (left) and Howard Gibson (7Q1840), President of the Cape Canaveral CB Club, (R) Check out the RCA MK VII CB unit at the UPI Headquarters, Holiday Inn, Cocoa Beach.

off" finally came and we are proud to say "that all units operated A-OK", with a "100% operation", to use a phrase common to this area. The ship-to-shore unit worked especially well, despite a rather high wind, keeping the antenna laying over instead of straight up. Thanks go to Paul Lusk, 7Q0512, and Jim Edwards, 7Q0462, for the use of their antenna equipment.

The Cape Canaveral Citizens Band Club is proud to have been of service on such a historic occasion. 10-7



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The TR327 offers four crystal controlled CB channels.

The TR327A adds Standard AM broadcast Band for extra convenience and fun.

The TR330 Han D Phone is the compact, fully-transistorized, portable unit that completes the Kaar CB line. Now available with 400 mw audio for maximum "talk power."

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Eliminates Noisy Precipitation Static* . . . Improves Signal-to-Noise Ratio . . . Affords up to 20 db Operating Gain . . . Increases Receiver Sensitivity . . . Extends Intelligible Coverage. Easiest to install.

MARK II SUPER BEACON FIXED STATION ANTENNA
*with exclusive Static Sheath**

Design advantages of the new **MARK II** now make it possible to step up the efficiency of your CB operation, and maintain clearer communication over greater distances. 19 feet overall, the omni-directional **MARK II** makes fullest use of the 20-foot legal length limit. Requires no radials or skirts. Provides 1 db gain over ground plane antennas. Employs a full half-wave radiator voltage fed through a special launcher-matcher cable section for excellent impedance match over the entire citizens band. Low angle radiation insures utmost efficiency and maximum contact with mobile units.

Patented Static Sheath* eliminates precipitation static*, greatly improves signal-to-noise ratio, increases receiver sensitivity, affords up to 20 db operating gain, increases coverage and readability.

Improved mechanical features and extra-rugged base support pipe add to its reliability. Simplified clamp mounting makes installation easy.

Precipitation Static** is caused by charged particles in the air impinging in a continuous stream on metal antenna radiator surfaces. It is revealed by a continuous hissing background noise. The patented **Mark Static Sheath is a tough, durable, dielectric plastic covering that acts as an electrical insulator and eliminates static interference caused by the precipitation effect.

MARK HW HELIWHIP®* MOBILE ANTENNAS
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This basic Mark development brings new efficiency, new compactness, new convenience to CB mobile communication, through its shortened mechanical structure. The **Heliwhip*** is molded Fiberglas designed to replace lengthy stainless steel whips and is far superior to whip and loading coil combinations.

The **Heliwhip** is top-loaded to provide the fullest operating efficiency. It can be located on the upper portion of the vehicle such as trunk lid, cowl, fender or hood to obtain proper ground plane. Step-tapered helical conductor provides uniform current distribution and important 50-ohm match.

Patented Static Sheath* eliminates precipitation static*, greatly improves signal-to-noise ratio, increases receiver sensitivity, affords up to 20 db operating gain, increases coverage and intelligibility. Single-hole mounting simplifies installation and easily permits blending with auto body style. Available in 18″, 3′, 4′, and 6′ models.

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U.S. Process Pat. 2,938,210

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CB TECH TALK

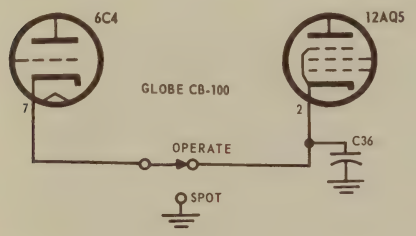
ADD CRYSTAL SPOTTING

By JIM KYLE, 10W0901
Technical Editor

Ever wonder if you're tuned to the same channel for receiving and transmitting?

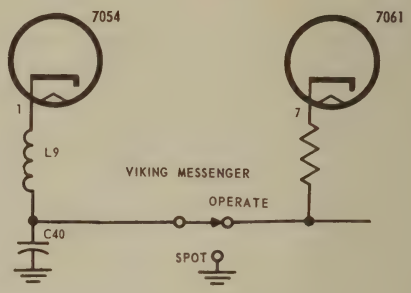
This can happen even with crystal control on the receiver, as adjustments age. And with a tunable receiver, it happens more frequently than most of us like to remember.

But for just 25 cents and a few minutes time, you can add a channel spotter to your transceiver and end the uncertainty. This channel spotter turns on the oscillator portion of your transmitter without putting the unit on the air; this provides a strong marker signal on your transmitting channel. By tuning your receiver to this marker, you know that you're tuned to the proper channel.



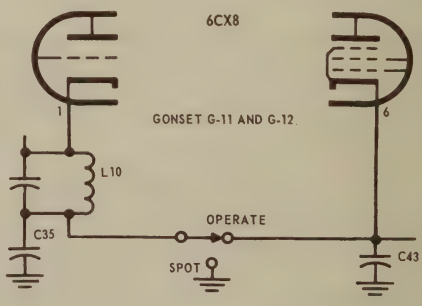
The only part you have to add to your rig is a single-pole double-throw switch; such a switch in the popular slide-action type costs less than 25 cents, but a toggle switch or pushbutton type is recommended for easier installation.

To install the channel spotter on a Globe, Gonset, Lafayette, or Viking unit, find room on the transceiver panel for the switch you have selected,



and drill the necessary mounting holes (be careful not to drill into any parts inside). Then wire in the switch as shown in the appropriate one of the four schematics accompanying this article. If you use a pushbutton, make certain that you connect it so that it is in SPOT position when pushed.

For transceivers made by other manufacturers, you'll have to refer to the schematic diagram of your individual unit (see the instruction manual which came with the equipment). Most trans-



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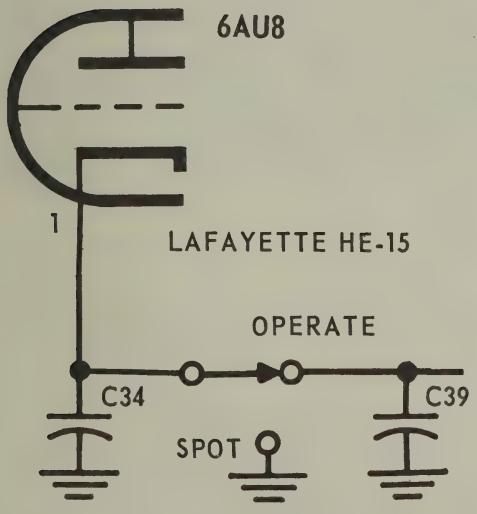


mitter circuits are arranged in a manner similar to one of the four shown here, so that grounding the cathodes of both transmitter tubes puts the unit on the air.

The channel spotter is installed so that in SPOT position, it grounds only the oscillator cathode, and in OPERATE position it leaves the original circuit unchanged.

A few transceivers, notably some RCA sets and the Lafayette HE-20, are wired to operate in a different manner. They have high negative voltage applied to the transmitting tubes during RECEIVE time, and remove this voltage to transmit. International Crystal's "Executive" series switches the plate voltage from the receiver circuits to the transmitter circuits to accomplish the changeover. The channel spotter won't work with these units.

Although addition of the channel spotter involves a modification of part of the oscillator circuit, it cannot affect the operating frequency and so involves no violation of FCC regulations.

10-7

You CAN Run 30 Watts on 11 Meters!!

By KERRY MATTHEWS, 7Q0519

While monitoring the higher channels on your CB rig you may have recently heard a number of very loud stations. Has it occurred to you that these stations might have more than "just a better installation" of another 11 meter station? Have you wondered how *you* might attain such a signal? If so, here is the secret of their success: they run 30 watts and have their antennas up 40, 50, or even 100 feet. Legal? Of course!

Can you "get in on this"? It's possible, if you meet certain easy requirements. A handful of other "hep" folks have already taken advantage of this relatively obscure higher power/antenna gimmick, the authority for which is located inconspicuously in the FCC's rules and regulations. A listening guide of some of the recently heard 30 watt stations appears with this article. Use it to supplement your CB Horizons Callbook when you monitor.

The only real requirements for hopping on the high-power bandwagon are that you meet any one of the following requirements: you are engaged in a commercial activity (including manufacturing), you are regularly engaged in the operation of a farm or ranch, you operate a business regularly en-

Monitoring Guide to 30 Watt 11 Meter Stations

BASE STATIONS

KA082	Coleraine, Minn.	Chan. 23
KAP87	Towanda, Kan.	23
KAQ34	Glencoe, Minn.	23
KAT474	Santa Barbara, Calif.	22B
KAU84	Coleraine, Minn.	23
KAU85	Coleraine, Minn.	23
KAU404	Buffalo, N. Y.	22A
KAU405	Buffalo, N. Y.	22A
KAU406	Niagara, N. Y.	22A
KAU643	Illinois (portable)	22B
KAX24	(portable)	22A
KAX466	Chattanooga, Tenn.	22A
KAX540	Bedford, Mass.	22A
KAX541	Beverly, Mass.	22A
KAY51	Hibbing, Minn.	23
KAY475	Albermarle, N. C.	22A
KAY476	Asheboro, N. C.	22A
KAY477	Sanford, N. C.	22A
KAY478	Raleigh, N. C.	22A
KAY479	Greensboro, N. C.	22A
KAY500	Durham, N. C.	22A
KBA990	Tewksbury, Mass.	22A
KBL75	Mt. Wilson, Calif.	22A
KBL76	Studio City, Calif.	22A
KBP42	Mt. Wilson, Calif.	22A
KBP43	Los Angeles, Calif.	22A
KCE28	Ogunquit Village, Me.	23
KCE61	Dalton, N. H.	23
KEG418	Bethpage, N. Y.	23
KEH58	Hicksville, N. Y.	23
KGE712	Lebanon, Pa.	23
KGF433	Cumberland, Md.	23
KGF476	Luke, Md.	23
KIB751	Miami, Fla.	23
KIP22	Winchester, Va.	23
KJB75	Polk City, Fla.	23
KKP640	Baton Rouge, La.	22A & 23
KKP641	Baton Rouge, La.	22A & 23
KKS858	Yazoo City, Miss.	23
KKT84	Bowie, Tex.	23
KKT85	Bowie, Tex.	23
KKT86	Bowie, Tex.	23
KKT87	Bowie, Tex.	23
KKT88	Bowie, Tex.	23
KKT89	Bowie, Tex.	23
KKT90	Bowie, Tex.	23
KKT91	Bowie, Tex.	23
KKU70	Aspermont, Tex.	23
KKU71	Aspermont, Tex.	23
KKU72	Aspermont, Tex.	23
KKU73	Aspermont, Tex.	23
KKU790	Muskogee, Okla.	23
KKV238	Lake Charles, La.	23
KKX89	Baton Rouge, La.	22A & 23
KKX90	Baton Rouge, La.	22A & 23
KKX91	Baton Rouge, La.	22A & 23
KKX92	Baton Rouge, La.	22A & 23
KKX93	Baton Rouge, La.	22A & 23
KKX94	Baton Rouge, La.	22A & 23
KKX95	Baton Rouge, La.	22A & 23
KKX96	Baton Rouge, La.	22A & 23
KKX97	Baton Rouge, La.	22A & 23
KKX98	Baton Rouge, La.	22A & 23
KLB43	Wynnewood, Okla.	23
KLD40	Louisiana (portable)	23
KLJ94	Aspermont, Tex.	23
KLL25	Deer Park, Tex.	22A
KLL71	Pauls Valley, Okla.	22A
KLL72	Maysville, Okla.	22A
KLL73	Maysville, Okla.	22A
KLL74	Pauls Valley, Okla.	22A
KL062	Norco, La.	22A
KMG891	Torrance, Calif.	23
KMJ694	San Francisco, Calif.	22B
KMR20	Los Angeles, Calif.	23
KMW27	Calif. (portable)	23
KNI70	Santa Barbara, Calif.	22B
K0G850	Gray, Idaho	23
K0G851	Idaho Falls, Idaho	23
K0K751	Casper, Wyo.	23
K0L529	Salt Lake City, Utah	23
K0S78	Gray, Idaho	23
K0S80	Idaho Falls, Idaho	23
K0W58	Cheyenne, Wyo.	23
KQI54	Toledo, Ohio	23
KQJ796	Muskegon, Mich.	22B
KSA546	Indianapolis, Ind.	23
KSA764	W. Lafayette, Ind.	23
KSA838	Putnamville, Ind.	23
KSD465	Chicago, Ill.	23
KSD627	Peru, Ind.	23
KSG86	Chicago, Ill.	23
KSG375	Evansville, Ind.	23
KSH35	Bogle Corner, Ind.	23
KSH36	Jasonville, Ind.	23
KSH56	Evansville, Ind.	23
KSH729	Riverside, Ill.	23
KSH749	Riverside, Ill.	23

MOBILE STATIONS

KA8409	Miami, Fla.	23
KC5532	Sestn, Idaho	23
KC7207	Baton Rouge, La.	22A & 23
KD2327	Cal Ari, Nev.	23
KD4069	Los Angeles, Calif.	23
KD8088	Kissimmee, Fla.	22B
KE5359	Muskegon, Mich.	22B
KE8110	Buffalo, N. Y.	22A
KE9056	Beverly, Mass.	22A

gaged in heavy construction (roads, bridges, etc). Police and fire departments and hospitals are also eligible. As you can see, *many* are eligible for this type of operation, and some of your present CB installation may be utilized if you decide to *high-power* it. AM or FM is allowed. No operator's license is needed.

The exclusive high-power channels within the Citizens Band are 22A (27.235 mc), Channel 22B (27.245 mc), and Channel 23 (27.255 mc) which is shared with the low powered rigs. Other high power channels are available on frequencies outside of the Citizens Band. This 30 watt operation is available *now;* this is not a *proposed* or *hypothetical* radio service. With the proper equipment and licensing you could be operating on one of these channels *right now!*

You ask about permissible communications? Well in some ways the rules are less restrictive than on the lower powered channels you are now using. For one thing, nothing in the rules which permit this type of operation says you *can't* work skip with your associated units, or with units licensed to others (providing there is an instance where there is cooperation or coordination required between the communicating stations). Minimum practicable transmission time is required, your call sign need be given at the end of each transmission or exchange of transmissions, or once each 15 minutes, *as you prefer.* A log-book must be maintained to record the call-signs of stations worked, and to show maintenance work done on your equipment.

Your present CB antenna and trans-

ATTENTION CB DEALERS And CB CLUB GROUPS!

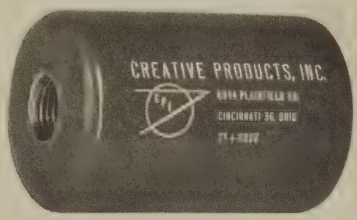
The brand new 17 by 26 inch two color Class D Citizens Band Call-Area Map for 1962 is now available from Horizons. This attractive wall mounting map is just the ticket for sprucing up shacks, and will prove invaluable when you are trying to track down strange calls heard on the band.

Single copies of the map sell for 50 cents each. Any bona-fide CB dealer or CB club group may purchase these maps from Horizons in **lots of 25 or more at 30 cents each.** Place your order today! Send check or money order for the correct amount to:

CB Maps
Horizons Publications
P.O. Box 3150
Modesto, California

ORDER TODAY—BE THE FIRST IN YOUR AREA TO HAVE THESE ATTENTION GETTERS IN STOCK!

More C-B Performance!!



An ANTENNA LOADING COIL used with your standard quarter wave antenna is the most economical solution to getting that extra performance you need. A loading coil cancels the inherent capacitance of the antenna, permitting maximum power transfer.

The Creative Products, Antenna Loading Coil is designed to:

- Allow improved operation with a standard whip
- Give 4 to 8 db increase in effectiveness
- Reduce receiver fading caused by antenna motion (Doppler effect)
- Give improved signal to noise ratio. (Less ignition noise)

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2" LONG – WEIGHS 2 OUNCES –
STANDARD 3/8–24 THREADS –
LCF–3 FOR 96"–102" WHIP
LCF–4 FOR 92" WHIP
AT YOUR DEALER OR
$6.65 P.P. FROM –

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6944 Plainfield Rd. Cincinnati 36, Ohio Ph. SY 1-0030

mission line may be retained, and if you decide to elevate your antenna, you may stick the whole business atop any kind of tower, flagpole, windmill, water tower, or whatever you have handy.

Your present CB rig is useless because it doesn't run enough power to give you any advantage on these channels, although you may run 5 watts input here if you wish. In addition, your rig must be type approved by the FCC. A list of such equipment is available for inspection at any FCC office, it's called "Radio Equipment List, Part C, List of Equipment Acceptable for Licensing." Equipment not included on this list may be licensed also, but only if it is submitted for individual type approval to the FCC.

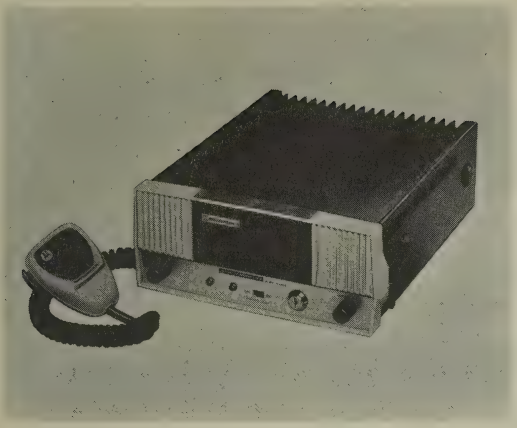
Because of the higher power and the fact that the equipment must be built to FCC type approval specifications,

G.E.'s Model TT base station rig, part of their PROGRESS LINE series.

the units are a bit higher in the cost department than 5 watt sets. Equipment is plentiful though, being made by Aerotron, Motorola, Kaar, RCA, Outercom, G.E., and others.

So here's a way for some lucky QRM-weary CB'ers to operate on uncluttered channels, with high power, with no antenna-height limitations, relatively unrestricted operating conditions, and with some of their existing CB apparatus.

There's much more to the story than we have space to tell you here, the entire picture can be obtained by checking through FCC's "Part 11," sub-parts "K" (Special Industrial Radio Service), and "L" (Business Radio Service) and subpart "O" (Manufacturers Radio Service). What it says is that an FCC form "400" and a little eligibility is all it takes for you to be on the air.



Motorola's DISPATCHER with 15 watts output. It may be "locked off" with a key to prevent unauthorized operation.

Remote controlled G.E. vibrator powered rig.

By the way—there *may* be a chance for you to operate with your 5 watts under your present Class D license on Channels 22A (27.235) and yet another wierdie, Channel 24 (27.275 mc) if a new FCC proposed rulemaking goes through.

This new rulemaking would make these two channels available to Class D stations on a shared basis with Class C and others—in other words, it will, in effect, create two more channels equivalent to the present Channel 23.

The Commission is asking for the comments of users in whether or not these two additional Class D channels should be granted. Comments are due by May 1—address yours to: Federal Communications Commission, Washington 25, D.C. Refer to the proposed rulemaking covered in FCC Report No. 956. We endorse this, we hope you will too.

10-7

PUSH

A BUTTON

TO SELECT YOUR TRANSMITTER CHANNEL *INSTANTLY!*

NEW

HAMMARLUND OCT-X

8 Channel Push-Button CB Selector

Now you can pick your CB crystal-controlled transmitter channel fast—without grinding through rotary selectors. "Mount-In-A-Minute" design permits the Hammarlund OCT-X to be affixed to the top or sides of any HQ-105 TR transceiver for instant conversion to 8 channel transmitter flexibility. 3 sets of channel markers supplied.

OCT-X ONLY $15.95 (less crystals)

Only this unique Hammarlund combination provides:

- 8 Channel CB Transmitter
- Effortless Plug-in Crystal Design
- All-channel Receiver—with continuous tuning 540 KCS to 30 MCS
- Optional CB/Ham Transmitter Operation (with proper license)

HQ-105 TRS—complete with built-in speaker and OCT-X. Only $240.45 (with one crystal)

Look to Hammarlund for the new, the unusual, and the quality in CB and Ham gear.

HQ-105 TRC—complete with 24 hr. clock timer, top-mounted OCT-X and companion S-100 speaker. Only $250.35 (with one crystal)

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CB's DREAM ANTENNA: THE RHOMBIC

PART II — Building the Rhombic

By GORDON J. KING, 17W2432

The author has had no experience with vertically mounted Rhombic antennas. It is assumed, however, that all one needs to do is to flip the "diamond" up on its side as shown in figure 3, mounting it sufficiently above ground at point B to be at least one wavelength between the insulator and the ground level.

The horizontal Rhombic antenna shown is a terminated device, with a terminating "load resistor" across the wires at point A in figure 4. This resistor is an 800 ohm noninductive (carbon-core only!) 5 watt type. This resistor is very important, as it keeps your signal from floating off the back side of the antenna.

Point B in diagram 4 shows an insert, 4A, which explains how you match the 800 ohm Rhombic antenna to your 52 ohm coaxial transmission line. This is a "Q matching section," constructed from ½ inch O.D. aluminum or copper tubing, spaced apart by plastic spacers 1-5/16th inches center to center. The Q Matching section is 8 feet 9½ inches long, from the top where it attaches to

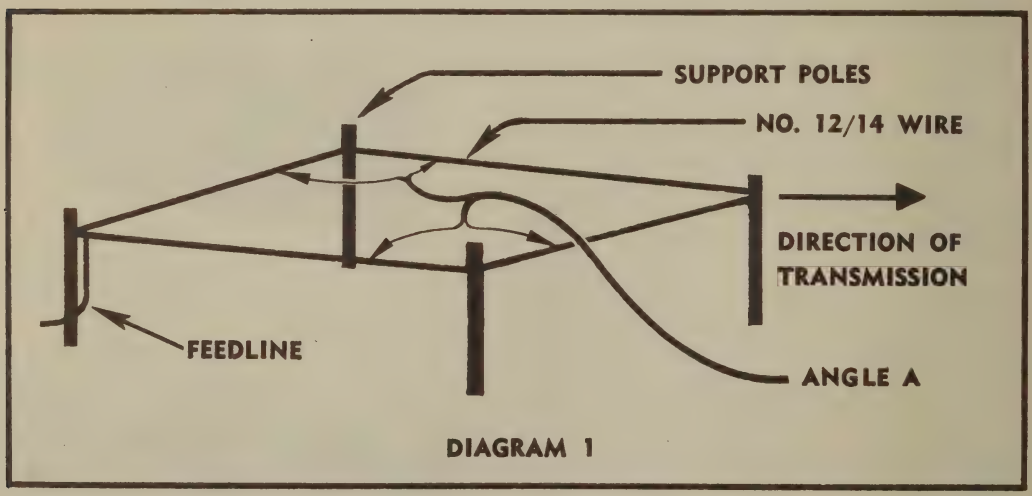


DIAGRAM 1

The basic horizontally-mounted rhombic, as described in the March CBH.

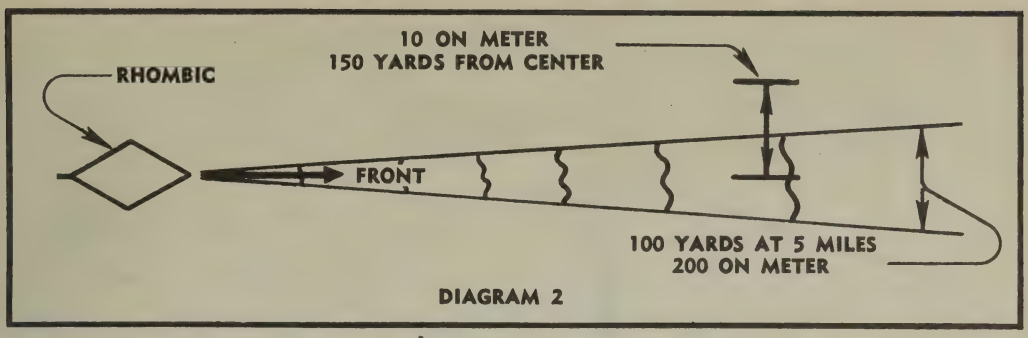


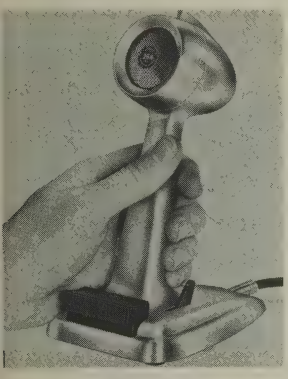
DIAGRAM 2

The signal path from a rhombic is pretty potent. Five miles from the beam width is about 100 yards across. 150 yards from the center of the beam the signal gives a 95% lower S-meter reading.

the *fire-end* of the Rhombic, to the base where the RG-8/U coax cable from your transceiver attaches on. The Q Matching section transforms your feed impedance to 800 ohms, matching the antenna. If there is sufficient interest in this matching system, we can go into it further at a later time.

Length W is equal on each of the four legs on the Rhombic. A table (table one) lets you decide how large or how small you wish to make your Rhombic. Gain figures are also given. Distances B and C are also given for each of the three W dimensions. These vary with size (W).

It is suggested that you mount the Rhombic on wooded treated poles (try your local phone or power company for some they have recently pulled from the ground), using heavy duty egg insulators where they are indicated in diagram 4, to keep the wire away from the pole. Nylon rope, running through



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Manufacturers know this — that's why more Turner microphones are used as original equipment on CB than any other. The Turner Model 350C for top mobile rig performance; the Model 254, ideal for base station operation. Get improved audio, greater range — get Turner, the standard microphone of the CB industry.

THE TURNER MICROPHONE COMPANY
953 17th Street NE
Cedar Rapids, Iowa

In Canada: Tri-Tel Associates, Ltd., 81 Shepard Ave. West, Willowdale, Ontario

Model 350C (Ceramic) list price....$16.80
Model 254C (Ceramic) list price....$23.50

THE TURNER MICROPHONE COMPANY
953 17th St. NE Cedar Rapids, Iowa

Gentlemen:
Please send me complete information and specifications on ☐ the Turner Mobile Model 350C ☐ the Turner Base Station Model 254C.

Name _____

Address _____

City _____ Zone _____ State _____

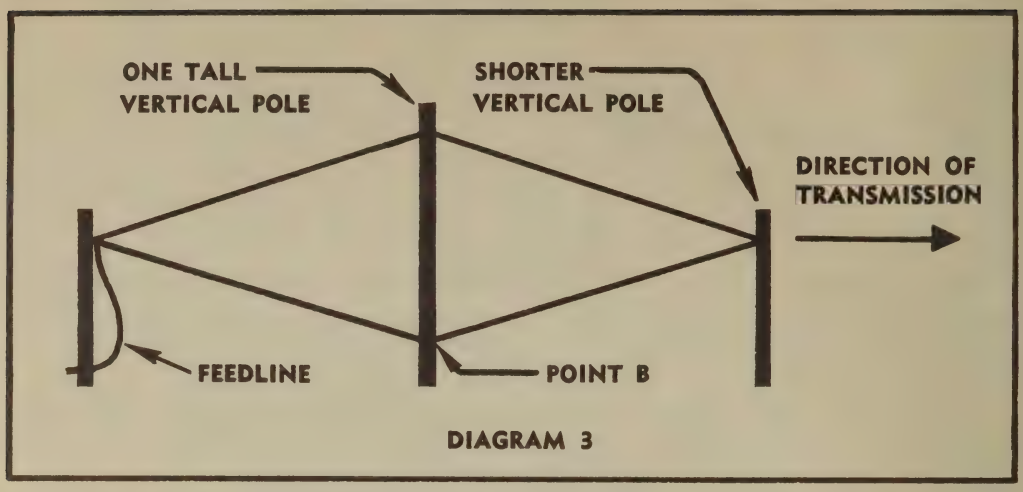
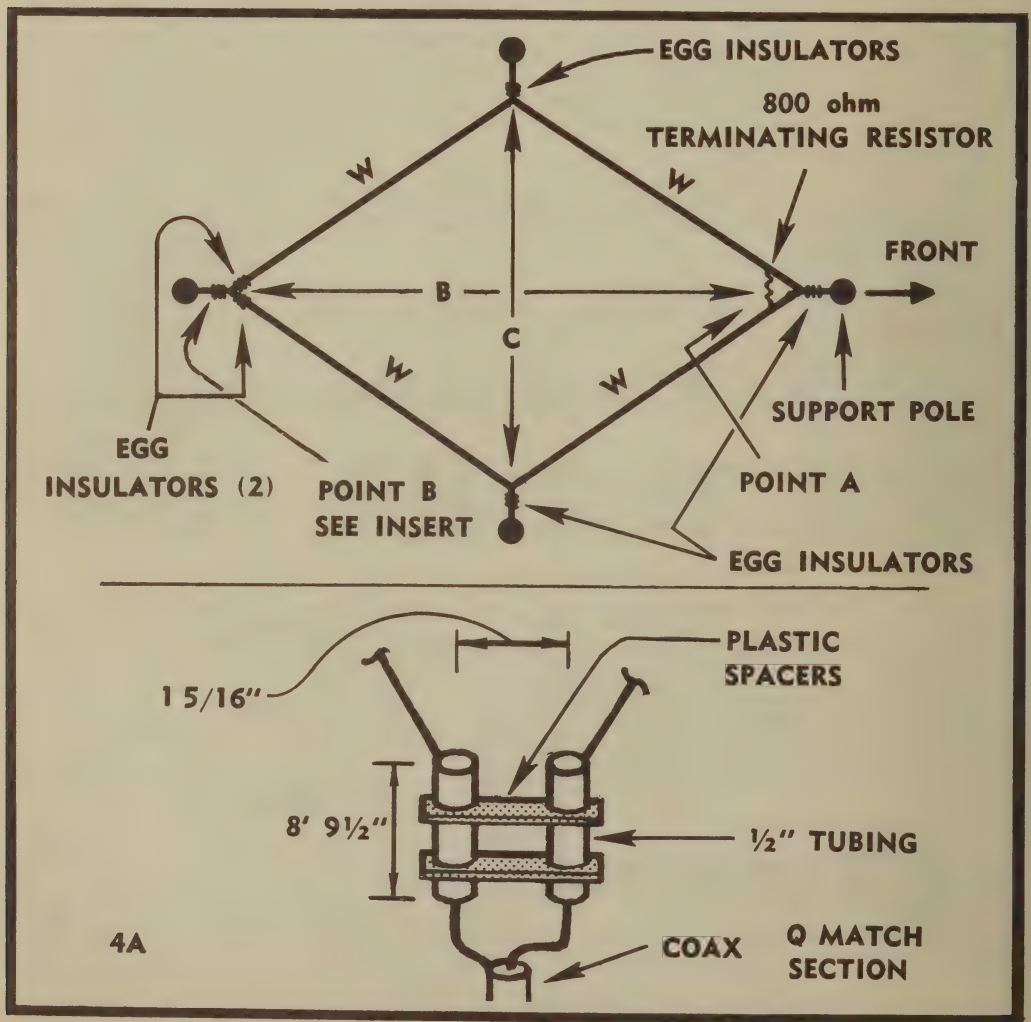


DIAGRAM 3

Vertical mounting of a rhombic requires only 3 poles. Below, you get the layout for actual construction. (see text).



Wave lengths per leg (length W)	Angle A (diagram 1)		Foot Measurement (length W)	Gain in db
2	70	degrees	63	4.25
4	50	"	126.5	6.0
8	35	"	252	9.25
12	22.5	"	378	12.5

Diagram 1. This will give you the different measurements and gains for the various sizes of rhombics.

pulleys mounted at the top of the four poles, can attach to the back of each insulator. This will allow you to erect the antenna on the ground level, and then pull it into place with the nylon rope over the pulleys. The rope-pulley combination will also aid you in leveling off the antenna (horizontal to the plane of the earth). I have small bags filled with sand suspended on the bottom of my nylon ropes. This allows the wires to give in the winds we have here in the midwest (as the winds blow the antenna wire grows taut, pulling on the nylon rope. The sandbags raise and "give" with the wind, but lower again because of gravity when the wind slows down or stops).

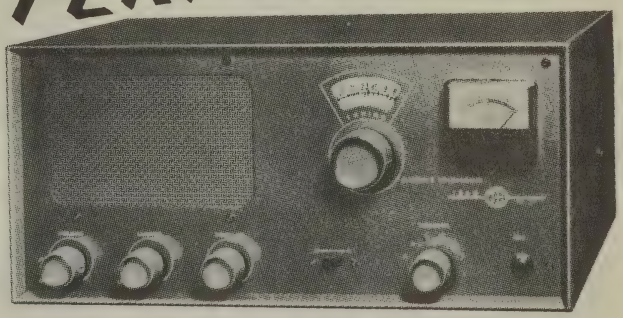
No. 12 or 14 copper clad steel wire is recommended for the actual construction. The steel adds strength, while the copper gives the antenna electrical conductivity.

I hope you find this to be a very useful antenna, if you too have a CB communications problem over long haul distances. If any antenna design known to man will do the job, the Rhombic is it!

10-7

TRAM'S HIGH PERFORMING!

CITIZEN'S BAND RADIO



- 18 Tube Performance
- 6 Crystal Controlled Channels
- Manual Tuning of All 23 Channels
- Dual Superhetrodyne Receiver
- Pi Network & Harmonic Trap
- Adjustable Squelch
- Series Gated Noise Limiter
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MODEL TR-27 with Turner Mic model 250X $249

ENGINEERED BY TRAM ELECTRONICS

The superb R 27 combines the finest components with the ultimate in engineering design to provide a reliability and range newly satisfying to business users and the most exacting C.B. "Buff".

Sophisticates will appreciate the absence of drift, readability of weak signals, new freedom from adjacent channel interference, and the 4 watts of undistorted audio. The transmitter with its sensational 3.5 WATT MINIMUM output from the FCC limited 5 watt input reaches hitherto inaccessible locations. *This equipment is for the perfectionist.*

TR-70 Mobile with same performance !

FOR MORE DETAILED INFORMATION AND SPECIFICATIONS, WRITE TO

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P. O. BOX 187, WINNISQUAM N H

NOT NEGOTIABLE

So You Want To Buy A Used CB Rig?

NOT NEGOTIABLE

Like buying anything used—a car, washing machine, a TV set—buying a used CB set is a "chance" game. If you make the right selection, fine and dandy, if you choose wrong you can easily end up with more repair bills and grief than you bargained for (pun).

Look at it this way, even the most inexpensive *new* CB rig will surely give you longer performance than the average used one. Remember, the CB market dates back to late-1958, and *all* sets from that vintage have seen a lot of air-time and mobile bounces—even the mythical one used by the little old lady only on Sundays to speak to her son.

If you are the kind of a guy who still has to gamble, you might follow these basic rules of the "used rig buying game" to eliminate some of the risk:

1. A reputable store will generally give you a better set (and deal) than an individual. A reputable store is interested in having you return to purchase goods in the future, an individual isn't.

2. Ask the salesman if they will give you a warranty on the used set. There isn't any standard practice in this respect, but if you can get one, don't settle for less than 30 days. With luck you'll get 90 days. If you can get a 30 day parts-and-labor warranty, it's better than a 90 day "parts-only" warranty.

3. Ask the dealer if he will accept the set for servicing after the warranty period has run out, if he won't, then don't buy the set.

4. Don't let the word "reconditioned" dazzle you. There aren't any industry standards regarding this, and the reconditioning may have consisted of a dust rag being wiped over the front panel. Find out exactly what the reconditioning consisted of—don't settle for less than replacement of all weak parts, alignment, and cleaning.

5. Don't buy homebuilt equipment or equipment in "as is" condition. Chances are you'll never get them on the air properly.

6. Steer clear of obsolete sets. You may have to pay dearly for replacement parts when the manufacturer has folded his tent. These include Chickasha, Acton Labs, Babb, and Dunlap, among others.

7. Stay away from "orphans in the storm." Some manufacturers are no longer in the CB business and parts for their equipment can be rough to find. These include: Morrow, Kay Townes, Rutherford.

8. Turn the set on, listen to the sound. If it is distorted or scratchy you've got something amiss in the audio circuitry, or you have a damaged speaker.

9. Give the transmitter an "on the air" test to check its modulation and output.

10. Check the squelch to see if it works, wiggle the volume control to see if the pot makes noise.

11. Stay away from sets which have obviously been "souped-up" in the final

—they aren't legal, they generally don't have any more signal than an un-modified set, and the strain on the other components in the rig caused by the heavy final usually means an early death for the whole deal.

12. Leave yourself an open door when you buy a used set. Insist upon being able to try the set in your home or mobile unit for a specified period, with the privilege of exchanging it for full refund or credit if it doesn't perform as represented.

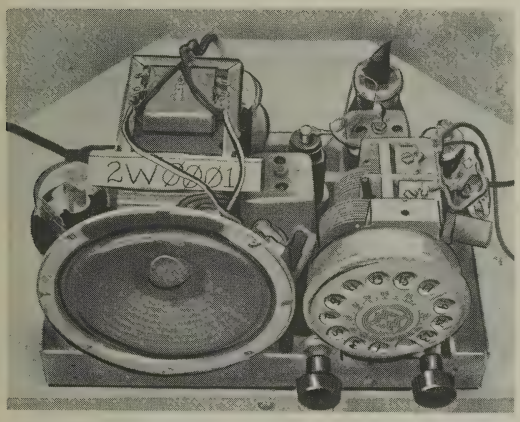
13. The ground-rules for advertising claims on used equipment haven't been solidified. Be careful to understand exactly what you are buying by mail. See below.

Now these rules won't guarantee that you'll be able to pick up $200 worth of CB rig for $35, but they may stop you from wasting $35.

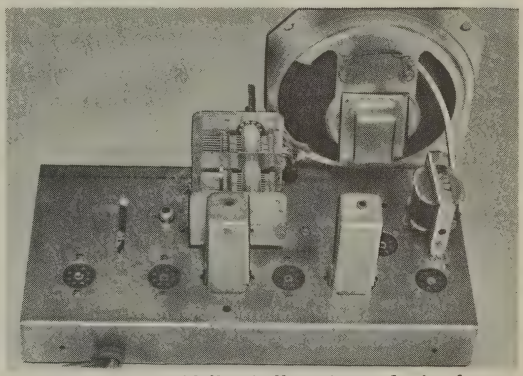
10-7

CBH READERS' GUIDE TO USED CB EQUIPMENT

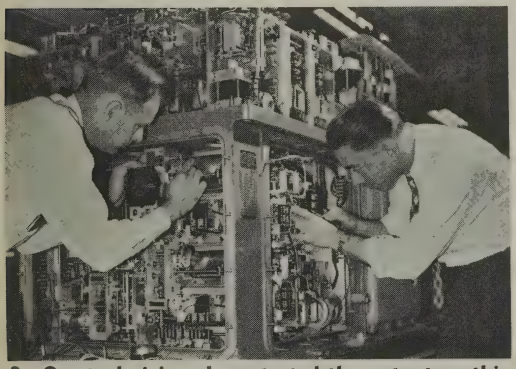
AN APRIL FOOL SPECIAL!



1. This little gem was the one with the best signal on the air back in October of 1958. Seen a little wear and tear but still a winner!



2. This one is sold "as is," a piece of wire here, a resistor there, and you're on the air.



3. Our technicians have tested the output on this rig and have certified that it stays within the authorized 5-watt input limit.

4. Built at home with tender loving care, this unique customized rig incorporates multiple frequency doppler phase shift quadruple modulation and a super-hooperdyne receiver.

HOOKING UP NUVISTOR PREAMPS

By HARVEY G. HURWITZ, 2W2921

Now that you have your transmitter perking along at a full 4.99999 watts with at least 99.044% modulation, it comes time for us to mediatate a bit while reading the mail.

Let's see now—the quadruple Whiz Bang with the drooping radials seems to get out OK while transmitting but somehow we still can't seem to hear worth a hoot. Yes, it would seem that the time has now come to get into the ol' QRM-inhaler. Behold, on the horizon (the CB Horizon, also the other one 50 miles away) is the nuvistor. You can roll-your-own nuvistor receiver-booster (see March issue of CB HORIZONS for instructions) or you can buy a ready-to-operate unit. Of the several models available we decided to pick the new Ameco (178 Herricks Rd., Mineola, N.Y.) Model PV-27 and show you how easily one of these deals gets hooked into a typical CB rig.

Before we roll up our sleeves and fire up the soldering gun, here are a few facts on the Ameco PV-27 to reassure you that the small effort of installing the thing will result in vastly improved performance. The PV-27 will give 25 db gain, that's more than 4 "S" units — or equal to the station you are monitoring increasing his power by at least 10 times!

Let's take a brief look at the reasons other than sheer gain that would prompt us to dive into the receiver with a preamp.

A major portion of the background noise we hear is being generated in the "front-end" (the RF amplifier) of our own receiver. By feeding a stronger signal into this stage much of the noise can be eliminated. In a set using a "T/R" (transmit-receive) switch there is little, if any, gain in the first RF stage. If we can cut down noise in this stage, the ratio of the signal to the noise will also improve. The 6CW4 nuvistor in the preamp has the happy combination of very high gain with very low noise. So much for the technical data—let's get to work!

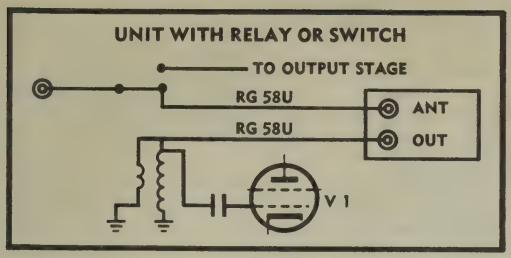
The physical installation of the preamp is really quite simple—all you do is drill 2 holes in the cabinet. Suit yourself as to the location.

There are two basic types of circuits used in the current run of CB transceivers; one uses a relay to switch the antenna from transmit to receive. The other uses a version of the "T/R" (Transmit-Receive) switch. A preamp may be added to either type of rig.

If your rig uses an antenna relay or switch you proceed as follows:

1. At the antenna relay or changeover switch, locate and remove the wire that goes from the relay antenna receive contact to the antenna coil.

2. Prepare a piece of RG-58U cable with a "Motorola" type plug at one end. At the other end, strip and tin ½" of the center conductor. Twist the braid into a short pigtail lead. (This lead should be long enough to reach from the relay to the preamplifier antenna socket.)



3. Solder the center conductor to the antenna receive contact on the relay or switch. Solder the braid to any nearby ground.

4. Prepare another length of RG-58U cable as you did in step 2.

5. Solder the center conductor to the antenna coil (the same point from which you removed the wire in step 1). Solder the braid to any nearby ground. Plug the other end into the preamp output jack.

6. Connect the brown lead on the preamp cable to the 6-12 volt filament supply line. (Note—For 12 volt operation you must add a 47 ohm 2 Watt resistor in series with the brown wire. 56 ohms is recommended for mobile use.)

7. Connect the blue wire on the preamp cable to the B plus line at any convenient point. You MUST measure the voltage at this point before connecting the unit. If this voltage exceeds 115 volts you will require a dropping resistor in series with this line. Consult the chart at the end of this article.

8. Solder the shield on the preamp cable to any convenient ground. This completes the installation of the preamplifier. Button up the rig and take a two minute break while the fellows with the TR Switch type units catch up.

If your unit utilizes a TR switch such as in the Lafayette HE 20A you proceed as follows.

1. Obtain a DPDT 6 or 12 volt relay. Mount this relay near the antenna jack on the inside of the chassis or cabinet.

2. Disconnect the wire from the antenna jack that comes from the final tank coil.

3. Connect one arm of the relay to the antenna jack center post.

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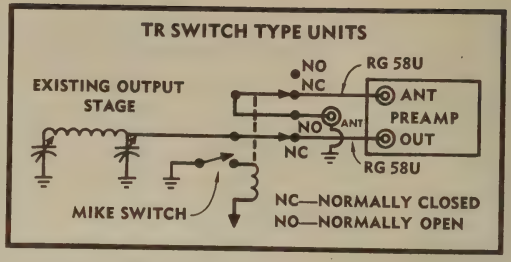


4. Connect a jumper from this arm to the normally open contact on the OPPOSITE side of the relay. (see Schematic)

5. Connect the wire from the final tank coil to the second arm on the relay.

6. Prepare a length of RG-58U cable with a motorola plug at one end. Strip and tin ½" of the center conductor. Twist the braid into a short pigtail lead. Connect the center conductor to the normally closed contact on the relay on the same side as the arm connected to the antenna jack. Plug the end into the preamplifier antenna jack.

7. Prepare another length of cable as above. Solder the center conductor to the normally closed contact on the Opposite side of the relay. Solder the braid on both cables to any convenient ground. (see Schematic) Plug the end into the preamp output jack.

8. Connect one end of the relay coil to the filament supply 6-12 Volt.

9. Connect the other end of this coil to pin 1 of the mike jack (HE-20A only). On other units connect it to a point that will be grounded during the transmit cycle.

10. At this point refer to steps 6, 7 and 8 of the instructions in the first part of this article.

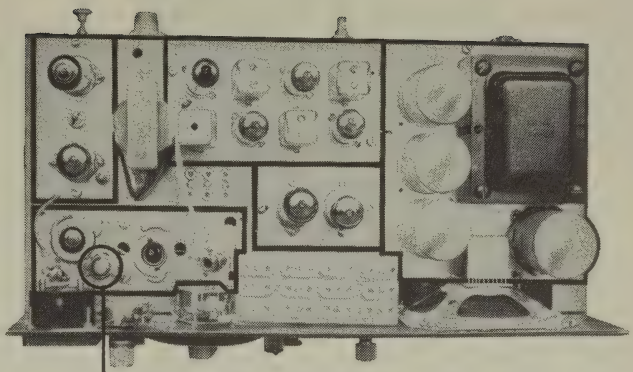
VOLTAGE CHART

*B Plus	Resistor
115-135	2.2K ½ W
135-150	4.7K 1 W
150-180	8.2K 2 W
180-200	10K 2W
200-250	18K 2W
250-300	22K 2W

This resistor can be installed by removing the yellow wire inside of the preamp that runs between the two 3 lug strips and replacing it with the

(*Continued on Page 52*)

ACTUAL SIZE



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GAR'S GABBINGS

Gar Greene, 1W4844
CBH Roving Reporter

Hello, Y'all! Here's the "New England Yankee's" report of CB below the Mason-Dixon Line. In this issue I would like to discuss the state of North Carolina. Although I spent only a few days there, I certainly was welcomed by all and I was made to feel right at home.

Upon arriving in Greensboro, I contacted "Woody" Wilson, 5W2205, whose CB-equipped *Gulf* service station is ready to aid any CB'er with automobile trouble. While I was with "Woody", I met John Cranford, 5W3686, who is a research engineer for the *P. Lorrilard Tobacco Co.* John took me on a tour of his company.

"Woody" and John are forming an aid and emergency unit which is named the *Greensboro CB Service Squad* designed to be on call for any type of emergency. This is in addition to the successful CB Club which is presently active in the Greensboro area.

Another club in this area is the *Alco Radio Club of Burlington, N.C.* The first Wednesday of each month they hold a supper meeting which includes the whole family. The third Monday is the business meeting of the club. Anyone who is passing through this area is welcome and cordially invited to attend their meetings.

I also met Jim Hornaday, 5W0670, of *Quality TV Service* of High Point, N.C. As you can see by his call sign, Jim is a veteran CB'er, and with the enlarging of his shop, he is recognized as the CB expert in the central N. C. area. "Smylie", 5Q3368, lives on Routes 29 and 70 in High Point and monitors Channel 11. He told me that he is always ready to give directions or offer service to any CB'er.

The enthusiastic CB'ers of Spencer, N.C., just held a very successful banquet on February 23rd, which featured food, fun and entertainment for everyone in attendance.

While I was in this friendly area, I was invited to a spontaneous CB meeting called by the *Guy-Wires CB Club* of Gibsonville. In talking to the President of the club, Bill Bartlett, 5W2662, and the V.P., E. T. Wheeler, 5Q0579, I found that the club was formed last July (1961). They get together every Wednesday night and monitor channel 11. They also said that this was a "working" club meaning that they were formed to help people and to aid in various situations whenever possible.

Although I did not pass through the southeastern part of the state, John Elmore, president of the *Helping Hand CB'ers of Kinston,* assured me on the "land line" that CB was becoming very popular in his area. I think the very name of this club indicates the kind of fine performance we can expect of them.

I plan to return to North Carolina in the near future to meet the many more CB'ers I feel I unjustly missed.

As you're reading this column, I'll be at the *National Citizens Radio League Convention* in Chicago. How many of you are going to try to make it? I'll have to "clear" since I've taken ample five minutes. 73's for now.

10-7

NEW AMECO NUVISTOR PREAMPLIFIER
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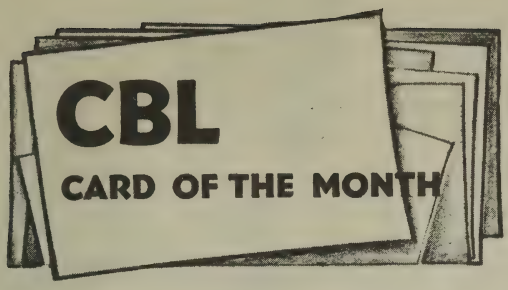
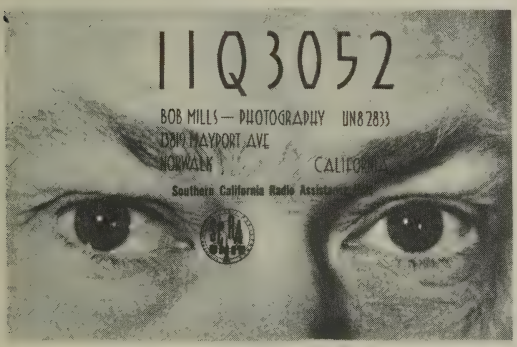


OK, we give up. Reader persistance and a really haunting CBL card won over the heart of our steely-eyed CBL contest judges.

Although the decision was unanimous, there was some split of motives. Some thought it was simply the best card, others couldn't take the grind of those weird eyes peering from the wall any longer (the winner has sent this same card in for several months in a row).

Be that as it may, this month's winner is Bob Mills, 11Q3052, of Norwalk, Calif. As you can see, Bob's card is



simple, original (to say the least!), clever—and even though the card is in black and white, it stands out like a beacon on any wall.

Are you proud of your card? If so, send it in by April 19th and take a crack at winning a free 6 month subscription to CBH, or an extension to your present subscription. The card doesn't have to be fancy to win, just clever!

10-7

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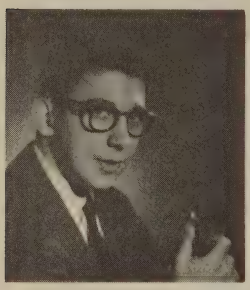
WHO WE ARE

AND HOW WE GOT THIS WAY!

It occurs to us that we've never really been properly introduced to each other—after all you're probably spending several hours a week reading and using our efforts and you probably don't "know us from Adam." We're taking this opportunity to fill you in on some facts about us so you can see that when you read Horizons, you are assured of timely—factual reports, interestingly prepared by professionals.

In addition to CB HORIZONS we publish the CB CALLBOOK/HANDBOOK, THE MONTHLY SUPPLEMENT TO THE CB CALLBOOK, COMMUNICATION HORIZONS (a technical publication for two-way radio engineers and users) and TV HORIZONS (a trade publication for the weak-signal TV industry). We have two additional monthly electronics publications on the drawing boards —one already in editorial production which will go on sale soon.

Now to the staff, those members of our crew who devote themselves to bringing you CB HORIZONS. As you will see, we are well qualified to be a part of your CB operations.



Our Publisher, Bob Cooper, is well known in communications and publishing circles. Prior to forming Horizons Publications in the fall of 1959, Coop conducted a monthly column in *Radio-Electronics* on weak signal television reception, and freelanced articles for *Electronics World, Popular Electronics, Electronics Illustrated, QST, The Canadian Amateur, Western Radio Amateur* and others. Coop's background is journalism and radio news broadcasting and he served as a News Director with ABC radio on the west coast in 1958-59.

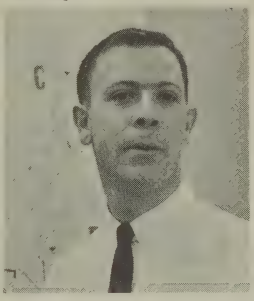
An avid experimenter and CB'er, Coop spends considerable time experimenting with his VHF-UHF transmitting station K6EDX/W5KHT developing circuits and

testing equipment you see written up in CB Horizons. His interest in all forms of communications, especially those taking place on frequencies above 25 megacycles, led to the birth of "Horizons" and will continue to guide the Horizons editorial policies in the years ahead as our existing magazines grow and new magazines are brought out bearing the Horizons label.

CBH Editor, Tom Kneitel, has been in CB since its early days; first licensed as 2A0305 in the Class B service back in 1953. Shortly after the Class D service was opened he began his CB column in *Popular Electronics,* which appeared in addition to many features on other subjects. A by-product of the motion picture industry, Tom spent six years with United Artists, and has written a number of training films for the U.S. Army Signal Corps. His editing credits include *The Audio Yearbook, Jobs and Careers in Electronics, Hi-Fi Stereo Guide, Hi-Fi Stereo Directory,* and *Electronic Kit Builders' Directory.* His by-line has appeared on feature articles in *Electronics Illustrated, Space Age, Boys' Life, Popular Boating,* and *TV Guide.* Tom has also written for a TV show which is currently waiting its turn on the networks.

Our Technical Editor is none other than Jim Kyle, one of the most popular writers in the electronics field today. This month Jim joins us as a full timer—leaving his position as Chief Technical Editor for the RW Division of Thompson Ramo Wooldridge, Inc., Los Angeles, Calif. They are computer manufacturers and missile systems managers. Jim's by-line has appeared atop features in *Mechanix Illustrated, Collier's, Electronics World, Radio-Electronics, CQ,* 73, and *Popular Electronics.* Jim holds an FCC commercial operator's license.

Our Associate Editor is Herb Friedman, who also holds an FCC commercial operator license—a "First Class Phone." Herb's articles are familiar to readers of *Popular Electronics, Electronics World,* and *Electronics Illustrated.* His several years as Audio Supervisor of hi-fi FM broadcasting station WNYE have given him much valuable experience in both audio and transmitter circuitry.



New staffer, Robert C. Diefenbach, is now holding down the CBH fort in Washington, D. C. Rob's experience as Coordinator of Press and Public Relations for NBC's Washington D. C., outlet WRC-TV, has given him invaluable contacts throughout our capital which will result in faster, more complete coverage of the Washington scene than has ever before been presented in any publication. His 18 years of professional writing experience includes a weekly column for 6 new York state newspapers, editing a prize-winning service publication for the Navy, and a TV series in New Haven, Conn. Rob's by-line has headed *TV Guide* articles and also his book, *"A Guide To Your Television Appearance."*

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NCRL CONVENTION

Here is the latest report on the various organizations who will have booths at the NCRL National CB Convention at the Morrison Hotel in Chicago, Ill. on March 9th through March 11th. Registration fee for the entire 3 days is $1.00 and it looks as though the whole gang will be there.

Lectures will be given by many of the industry people attending and a talk will be given by a representative of the FCC.

The National Civil Defense Authority will show movies contiuously throughout the convention, with a different one each day.

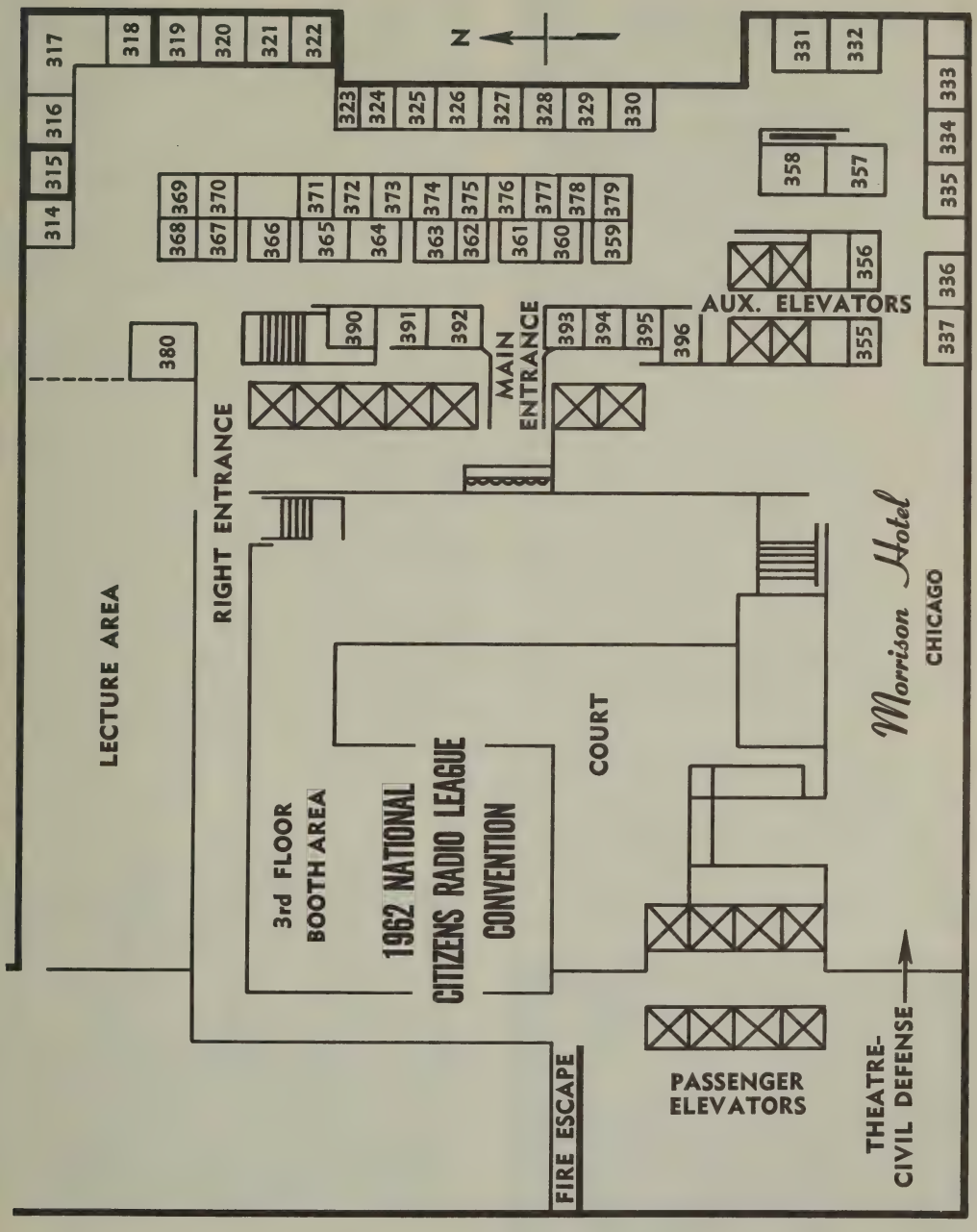
A CB Club Room will be maintained so that officials of CB clubs may get together for eyeball-QSO's.

The participating manufacturers and CB interests will be located at the booths as indicated:

EXHIBITOR	BOOTH
Allied Radio Corp.	327
Browning Laboratories	380
CB HORIZONS	**315/Convention Registr. Desk**
CB Nationwide News	356/368
CB News	323
CB Press	363
Central Electronics & Sound	357
E. F. Johnson Co.	395-396
Electra-International	378
Electronic Instrument Co. (EICO)	370-371
General Radiotelephone Co.	367
Globe Electronics	330
Hallicrafters Co.	362
Hammarlund Mfg. Co.	318
Heath Company	391-392
Hy Gain Antenna Products	377
James Knights Co.	316
LaSalle Transceivers	361
Mark Products Co.	390
Meeco Inc.	375
Chuck Baer-K9TVA Enterprises	314
National Civil Defense	334-335
NCRL Information	393
NCRL Registration & Membership	319-322
Polytronics Labs. Inc.	366
Pow-R-Mike (SMEA Engineering)	329
Raytheon Co.	336-337
10-4 Magazine	360
Texas Crystals	394
Turner Microphones	369
Utica Communications Corp.	358
Vocaline Co. of America	364-365

You are cordially invited to stop at the CB HORIZONS booths, 315 and the Convention Registration Desk and say hello to the gang. 10-7

Where To Find Us



CB SHOWCASE

NEW CB PRODUCTS OF THE MONTH

Do your crystal mikes get "cooked out" in the car? Do you have a mike which needs a new element? Want a little more mike output for more talk power?

Which ever of the above shoes fit you, your problem can be solved by Custom Electronics, 2929 Fulton St., Brooklyn 7, N.Y. For the paltry sum of $3.50 they will send you one of their A-200 mike replacement cartridges. We've seen them and they're pretty sharp—heat and humidity resistant, small size (1¼" by ⅜") for easy installation. Unit has a —48 db output with a rising midrange characteristic giving sharp, clean, quality.

Considerable interest was generated by our January mention of how CB'ers are painting the top 6 inches of their mobile antennas in glowing red to advertise the fact that they monitor NATCH-9. Here's a product which we recommend for this purpose: it's Switzer Bros. (4732 St. Claire Ave., Cleveland 3, Ohio) DAY-GLO Acrylic Lacquer.

This dazzling paint comes in *Rocket Red* and *Fire Orange* and can be seen at great distances when sprayed on a mobile whip. Switzer's *special CBH price* is $2.21 for the 16 oz. can, which sells nationally for more than three and a half dollars.

The colors are brightest when sprayed over a white primer ($1.46 for 12 oz. can) and will last longer if a coating of *Filteray "C"* is sprayed over them ($1.91 for 16 oz. can).

A hep CB club should be able to fix up all of its members with this popular and distinctive mark with one can of each of the above.

A new bumper mount has been announced by New-Tronics, 3455 Vega Ave., Cleveland 13, Ohio. It embodies the use of a flat alloy steel strap which fits tightly, yet inconspicuously, against any shape of large or small bumper. All metal parts are cadmium plated.

Electro Voice, Inc. (Buchanan, Mich.) has brought a new mobile CB mike out called the 714SR. The mike, its case of beige Cycolac, delivers —55 db output. A DPST switch shorts the mike element in "off" position and completes the relay circuit in the "on" position. Price is $16.50 list.

International Crystal (18 N. Lee, Oklahoma City, Okla.) has just brought out their EXECUTIVE S-METER/SPEAKER ASSEMBLY. This

unit, which has a built-in high quality 5" by 7" oval dynamic speaker, embodies a precision microammeter calibrated in microvolts and S-units. Meter reads the actual power being received

by the antenna from the station to which you are tuned, with three scales handling the weakest and strongest of stations. Plugs into the accessory socket of the EXECUTIVE 100 and can be used with any other set having receiver AVC.

This new product has an exceptionally high quality high impedance VTVM. A special calibration chart is supplied for use with units other than the EXEC 100.

Unit is available from dealers only. Costs $49.50.

E-Z Way Towers, Inc., one of the largest and best known communications tower manufacturers, has announced a new line of sturdy-strong economical towers that just may fit your individual CB needs. Designed especially for quick-simple installation, the G-10 tower comes in 10 foot sections weighing just 29 pounds. For other services, the G-10 goes to 40 feet without guys and 60 feet with guys. A climable ladder is provided on three sides. The tower is galvanized to withstand the elements. It would make a dandy mount for your TV antenna, with your CB ground plane or beam mounted below. The dealers price is $16.95 per 10 foot section. Write to Clarence Jax at 5901 E. Broadway, Tampa, Florida for full information. Tell him CBH sent you.

The CBH Lab Reports . . .

WE TEST

☆ HEATH GW-11
☆ INTERNATIONAL CRYSTAL EXECUTIVE 100

THE HEATH GW-11

As part of CBH's "Let's Build & Kit" program, CBH tested the Heath GW-11 which is available either kit or wired.

First off, as shown in the photograph, the GW-11 is very compact. It is lightweight and not very deep, resulting in a simple two screw mount which is flush with the dashboard. Provision is made so the chassis can be removed for servicing without dismantling the cabinet. In all respects, the GW-11 is well suited to installation in a compact car.

The power supply is optional, 6v. DC, 12v. DC or 120v. AC. Being a modular section the power supply can be easily changed to meet any new power requirements. It is the single supply rather than the common dual voltage type which contributes to the GW-11's compactness.

The receiver is tunable or single channel crystal controlled. Surprisingly, the tunable oscillator is very stable. When changing from AC to DC operation there was **no** shift in dial calibration.

An effective noise limiter is provided as is an adjustable squelch. The squelch is of the all in-all out type. We would rate the squelch as only fair, since high impulse noise will "break" through.

A single stage of 455kc. IF provides adequate selectivity in all except "saturated CB" areas.

The three channel transmitter utilizing overtone crystals delivered slightly over 2 watts to our SECO 510.

The modulation is the same quality as Heath's famous "Benton Harbor Lunchbox"—to 100% with plenty of "talk power."

Subdued power and RF/Modulation lamps are provided.

The GW-11 uses a pin jack rather than an SO-239 coaxial antenna jack. For convenience in connecting to existing antenna equipment, including test

equipment, we suggest the pin jack be replaced with an SO-239.

This unit differs from the GW-10 in the fact that it has an extra stage for increased power output, it also has an S-meter, as shown in the photograph. It has 3 transmit channels.

Our conclusion: a dependable unit designed for low cost communications.

INTERNATIONAL CRYSTAL'S EXECUTIVE 100

By HERB FRIEDMAN, 2W6045
Associate Editor

When we finally latched on to the Executive 100 our first thought was that in appearance and "feel" this was a piece of "professional" gear. We were not to be disappointed, for in appearance, construction and most of all performance the Exec *is* professional.

There is really no section we can single out for specific attention since all Exec features give better than good performance.

The receiver is both tunable and two channels crystal controlled. Associated with the tunable control is a fine *modulated* built-in channel spotter (we'll cover this later). *Each* crystal position has provision for zeroing the crystal to exact center channel, or off center if you want it that way.

The receiver is double conversion with a crystal filter in the first IF and a stage of 455 kc. in the second IF. The result is the best compromise between selectivity, receive audio quality and tuning ease we have seen (and used). To explain: In electronics you don't get something for nothing. If you increase the receiver selectivity too far, you get "sideband cutting" which results in semi-muddy audio, or you have to detune to receive sharp quality in which case you lose some benefits of the extreme selectivity, and . . . and this is a big AND . . . if you are working two or more stations slightly off center channel you will have to constantly retune as each station comes on. International has avoided all these pitfalls. The selectivity is excellent with very clean receive audio quality. With an external, large speaker of decent quality your eyes will really be opened to what good audio is.

The noise limiter is very good; the squelch one of the best. By controlling

the bias on the audio amplifier the squelch adjustment does not suddenly cut in and out. It goes in very slowly being able to release on the weakest of signals. The squelch is also noise-immune.

A socket is provided to which you can easily attach a remote speaker or an S-meter.

The transmitter has provision for 12 crystals. Wired in conjunction with the transmit oscillator is the channel spotter. You set the channel selector to *any* channel and flip the spotting switch; a modulated signal is provided to which you can tune the receiver, thereby insuring your receiver is tuned on the button. This is a heck of a good feature and except for crystal control ranks at the top of ways to accurately pretune a receiver.

While International claims the transmitter, which utilizes a pi-net output will deliver up to 2½ watts, our model checked out at 2.7 watts. All Execs come equipped for channel 9. Our 9 rock checked out to 120 cycles.

The m o d u l a t i o n is exceptionally clean, due primarily to a volume control and modulation indicator. Most CB gear is factory adjusted for an "average" voice level. Unfortunately, if *your* voice is low you undermodulate,

(Continued on Page 52)

CITIZENS COMMUNICATIONS

*** All active CB'ers are invited to submit club reports, and individual activity reports to the CCM or ACCM in your region. CB club secretaries are invited to add the CCM or ACCM in your region to the club paper mailing list, as well as submitting reports on recent club activities to the reporting CCM and ACCM's each month. CCM-ACCM deadlines are the 5th of each month. CCM and ACCM appointments are still available in many areas, including the (old designation) 4th, 7th, 8th, 9th, 11th, 12th, 13th, 14th, 21st, 22nd and 23rd call districts. Why not apply today?**

"WHAT'S GOING ON"

March 17—Annual Banquet, Chester Co. (Pa.) CB Assoc. Live dinner music, floor show, dancing. $3.75 per person. Contact Bob Reymos, 3W3741, 703 E. Chestnut St., Coatesville, Pa.

March 31—First Annual Jamboree—Piedmont 5 Watter CB Club of Hickory, N.C. Chicken dinner from 5:30 to 9:00. $1.50 per person. Giving away a Johnson Messenger and you don't have to be a member to win. Contact Carl L. Brooks, Jr., 707 15th Ave., NW, Hickory, N.C.

May 26-27—17 District Radio Convention sponsored by Citizens Radio Club of Wichita, Inc. Will be held at the Broadview Hotel in Wichita, Kansas. Speakers, exhibits, displays, banquet, and other interesting features. All invited! Contact Citizens Radio Club of Wichita, Inc., Box 2638 Munger Station, Wichita, Kans.

July 6-7-8—National Convention and Jamboree sponsored by Central Florida Alliance of CB Clubs. To be held at Cape Canaveral with special tours of Patrick AFB, lectures, exhibits, fun for all. No CB'er will want to miss this. More details next month in CBH. Contact Howie Gibson, 7Q1840, c/o Box 74, Cocoa Beach, Fla.

FIRST CALL AREA: ACCM: Seth B. Paull, 701 Hope St., Bristol, R.I., William M. Welch, 1Q5640, 34 Sunset Rd, West Haven, Conn.

Bristol County CB Radio Club of R.I. held meeting with Capt. of Police, Director of Dristol C D in attendence an explanation was given as to help CB Club can give C D them. Units were presented with cards singed by C D Director—they state "Town of Bristol, Security Pass-C D.

Massasoit CB Radio Club of Warren (R.I.) held a special CD discussion with officers of Bristol Club about channels for emergency use. They decided upon Warren R.I. Ch. 7, Bristol R.I. Ch. 21 (alternate Ch. 11), RI Radio League (Prov. R.I.) has 200 members with 6 new this month. Narragansett Bay CB'ers had a dinner and card party February 24th at Newport R.I. One pair of Walky Talkies and one SW receiver were given away.

New officers of CB Association of Connecticut for 1962 are C. F. Collins, 1W4265, Pres; W. Kates, 1W1351, Exec. V.P.; Frank Evans, 1W9337, V. P.; Gene Smith, 1Q0598, Sec; Robert Waldhaus, 1W5098, Treas.

SIXTH CALL AREA: CCM Donn W. Sanford, 6Q3944, Box 304, Northport, Ala. ACCM Ken Chabless, Columbus, Georgia

The Black Warrior Citizen's Band Club of Tuscaloosa, Ala. is making great progress in the direction of community service work. The club is now undertaking to provide spot news coverage for Radio Station WNPT. The plan is to go into full scale operation within the next two weeks. The Civil Defense group has also asked the club to provide help in the communications section of CD, and plans are being made at this time.

The Tuscaloosa City Police is forming an Auxiliary police force and has indicated they would draw it's first members from the club. It would not be necessary to belong to the club to be an officer, but preference would be given in the 1 light of past service and help given the city by the club. A real feather in their caps. The club recently received a letter of commendation from the Alabama Highway Patrol for

(Continued on Page 47)

with 1 pair of crystals, microphone and power cables

$179.50

NOW...Tomorrow and for years to come!

Sonar CITIZENS BAND RADIO

• 8 Channels, crystal controlled transmitter and receiver • Tunable receiver for 22 channels • Transmitter 100% Class B modulated • Adjustable squelch • Automatic noise limiter • R. F. Power indicator • 1 Year guarantee • Easy to install. Ideal for home, boat, car or business. Weighs only 9 lbs...4¾ x 9½ x 11¼ • FCC Type accepted* (*in preference to only certification).

SONAR RADIO CORPORATION, 3050 W. 21 St. • B'klyn 24, N.Y.
Please send me complete information on Model "E" CB Radio.

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18 VALUABLE PRIZES - - FREE!

Courtesy of CBH and the CB Manufacturers of America!

NO MONEY! NO BOXTOPS! NO CONTESTS! JUST PRIZES!

All you do is fill out the card on page 45 (or reasonable facsimile), paste a stamp on it, mail it to us before April 10th—and you have a chance at all kinds of goodies. Winners' names will be drawn from the old barrel, notified by mail and announced in the June issue. You can enter every month if you like—be sure to watch for our DREAM STATION #2 which consists of a BROWNING LAB 23-S-9 23-channel transmitter (with 23 crystals) and the BROWNING LAB R-2700A super-deluxe receiver, plus a famous signal s-t-r-e-t-c-h-i-n-g antenna and other accessories—SOON IN CBH! (A subscription to CBH is your only assurance of being able to know when this equipment will be given away!)

$171.97 IN PRIZES THIS MONTH!

FIRST PRIZE—A KNIGHTKIT C-27 TRANSCEIVER ($79.95)
From Allied Radio, 100 N. Western Ave., Chicago 80, Ill.
This is the kit you've heard so much about. Ultra-modern styling, 2 transmit channels, 2 receive channels plus selective superhet tunable receiver. Has squelch, automatic noise limiter and both push-to-talk and intercom-talk type operation.

SECOND PRIZE—A LAFAYETTE TM-58 SWR BRIDGE & RF METER ($27.95)
From Lafayette Radio, P.O. Box 10, Syosset, N.Y.
New! Accurate measurement of your CB RF output and your SWR with this precision unit. May be left in line. Metal cabinet.

THIRD PRIZE—A TURNER 350C MICROPHONE ($10.08)
From The Turner Microphone Co., 925 17th St., N.E., Cedar Rapids, Iowa
Ceramic hand held mike with 80 to 7000 cps response. Push to talk, hanger button and dash bracket for mobile mounting, high impact case.

THIRD PRIZE #2—A DUAL CONVERSION ADAPTER KIT ($16.95)
From Bainbridge Radio, 2649 Bainbridge Ave., New York 58, N.Y.
All parts, schematic, and pictorial for making any CB rig dual conversion for added selectivity.

THIRD PRIZE #3—A VANGUARD RF AMPLIFIER ($10.99 LIST)
From Vanguard Electronics Labs, 190-48 99th Ave., Hollis 23, N.Y.
Receiver signal booster contains high gain pentode tube in a circuit tuned to 27 mc. High image rejection. Wired.

FOURTH PRIZES —

1. AN OZCO "SNOOZER" SQUELCH ($2.00).
From OZCO Sales, Canaan, Conn.
Add-on squelch quiets your receiver to a hush!

2. A CESCO GENERATOR FILTER ($2.95).
From CESCO, 6151 Dayton Liberty Road, Dayton, Ohio.
Eliminates generator whine in mobile installations. Tunable.

3. 5 CB LOG BOOKS ($.65 EACH).
From Elanem Co., 1116 Inwood Place, Plainfield, N.J.
Especially designed for CB, this new book contains 50 pages with plenty of space for each entry. 5 winners here!

4. 5 CRYSTALS FOR ANY UNITS ($2.95 EACH).
From Texas Crystals, 1000 Crystal Drive, Ft. Myers, Fla.
Your choice of a guaranteed .005% crystal for any channel for any unit. 5 winners here!

5. A BARTLETT AUTO NOISE FILTER ($3.00)
From Ben Bartlett, 1815 W. 85th St., Los Angeles 47, Calif.
Sealed against moisture, oil and dust. This unit attaches to the auto generator. Eliminates noise at the source.

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. . . your buying guide for precision radio crystals and quality electronic equipment . . .

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- Citizens Band Crystals
- Transmitters
- Oscillators
- Converters
- Transistor Subassemblies
- Power Supplies
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18 North Lee, Oklahoma City, Okla.
Please rush FREE 1962 International Catalog.

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(TEAR THIS CARD OUT AND PLACE IT ON YOUR MOBILE UNIT'S SUN VISOR)

POPULAR CB 10-CODES

10-1	Receiving poorly
10-2	Receiving well
10-3	Stop transmitting
10-4	OK
10-7	Out of service
10-8	In service
10-9	Repeat
10-10	Standing by
10-13	Advise road/weather conditions
10-20	What is your location?
10-33	Emergency traffic
10-36	Correct time
10-41	Switch to Channel
10-99	Cannot copy you

COURTESY OF INTERNATIONAL CRYSTAL MFG. CO.

PLACE STAMP HERE

International Crystal Manufacturing Co., Inc.

18 North Lee

Oklahoma City, Okla.

(*Continued from Page* 43)

services rendered in traffic control on several recent occasions. The Black Warrior Citizens Band Club now boasts 41 members and is growing each month. The club took its name from the Black Warrior River which flows past Tuscaloosa.

FIFTH CALL AREA: CCM J. M. "Jim" Robinson, 8Q0484, 9547 Granby St. Norfolk 3, Va.

The Norfolk Citizens Radio Club of Norfolk, Va., met in the Southern Shopping Center parking lot in Norfolk. The meeting was called in order that the members of the NCRC could compare CB gear and the CD committee could inspect the members mobil equipment. Bob Walker, 5W2921 and Bill Napp, 5Q1928, conducted the inspections of the equipment. Over 50 CB'ers from the local area attended the outing and participated in the checks. The participating CB'ers received many helpful tips from Bob and Bill, and the CD committee is back at work on the Norfolk CD/CB plan.

On February 8, 1962, the NCRC was honored with the presence of the Engineer in Charge, 5th Radio District, FCC as the guest speaker. CB'ers from the local area gained much knowledge from the speaker; and received answers to many pertinent questions regarding the Citizens Radio Service. Tom Brock, 5Q0432 and "Doc" Talimini, were accepted as members of the NCRC.

From Newport News, Va., comes word from the CB 5 Watters Club that much progress is being made in CB activities. The publicity committee will soon debut its new monthly newsletter which will be aptly dubbed "The Skip-Official Voice of the 5-Watters of Virginia". President Bob Mallison, 5W2423, appointed standing committees to promote the various club activities. "Doc" Talamini is publicity chairman and promises more news of the CB 5-Watters of Virginia.

EIGHTH CALL AREA: CCM Ralph F. Lord, 4834 Crown Ave., Baton Rouge, La.

The Emergency Communications Organization (ECO) of Baton Rouge, La. is growing rapidly. However, we do regret the loss of our Communications Officer, Dick Thevent who was forced to resign because of pressing personal obligations. The organization will hold an election to replace Dick and also to elect another member to the board of directors. At present Pat McDonald (assistant communications officer) is doing an excellent job of holding down the C.O. job.

Just before the deadline for this report; I had a fine "eye-ball QSO with Dewey Hymel of Shreveport, La. Dewey is a member of the Police Dep't of that city and also a member of the SHREVEPORT-BOSIER CITIZENS RADIO CLUB. The club presently has some fifty members, who monitor channel 11 from 7 AM to 12 PM; with channels 4, 9, 11, & 18 as alternates. Dewey is working to get the CB'ers in the area to "fall in Line" with the "NATCH-9" program.

NINTH CALL AREA: CCM John A. Hudson 9Q0026, 235 Englewood, San Antonio, Texas.

The San Antonio CB Club had their monthly meeting and 1962 officer elections Feb. 11, 1962. Elected were Pres. Art Hall; Vice Pres. John Hudson; Sec. Treas. Keith Cruse; Tech. Advisors Louie Barrientos, Bob Pace; Pub. Relations Joel Holyoak; Net control Geo. Frick. A very nice door prize, a Magnum 27 atenna, was donated by Sterling Electronics, San Antonio. The lucky winner was Mrs. Joel Holyoak. We would like to have news from other clubs within the Ninth call area. Please send information of your club activities to me. Have word that Lucy and Dick Suter, 9Q0225 and 9Q1382, former S. A. residents are trying to get a club started in Houston. Drop by 10510 Cheeves in Houston for more info.

TENTH CALL AREA: CCM Bob Johnson, 10W4389 4300 Rector Ave., Fort Worth, Texas. ACCM James Abney Jr., 10Q2516, Marshall, Texas.

CB Club of Fort Worth elected new officers last meeting. 10W2230, Pres.; 10W4184, Vice-Pres.; Mrs. 10Q1653, Secretary & Treasurer. The Bell Telephone Company in Fort Worth deserves a large amount of credit, this company furnished a meeting room for this CB group. To the surprise of the officers of the club only approximately 29 members attended out of over one-hundred. Lets triple this at the next meeting.

One of our most liked club members, 10W2066 witnessed a boy who lost control of his motorcycle and was thrown off. 10W2966 tried for an emergency call to 10Q0153 to call an ambulance, however, a mobil unit from a small town near by would not release channel 11 until their conservation was finished, "how is this for a good CB'er."

RUN — DON'T WALK
to your nearest dealer for
JAMES KNIGHTS
"GOLDEN LINE"
CITIZENS BAND
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Dealer, distributor and manufacturer inquiries invited

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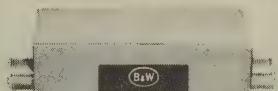
Sandwich 2, Illinois

TV INTERFERENCE?



A B&W low pass filter will end interference with your neighbors TV reception. B&W Model 424 is a three-section low pass filter which installs in the antenna coaxial line. Reduces all frequencies within the TV band by 60 db (*a reduction of 1-million times*).

The B&W Model 424 offers negligible filtering to frequencies below 30mc. Made for installation in 52 and 72 ohm coax lines. Ideal for any transmitter (*up to 100 watts*) operating between 1.5 and 30 mc.

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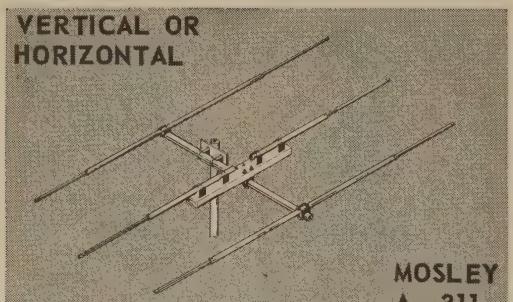

MOSLEY A–311 BEAM

BEST POINT–TO–POINT COMMUNICATION

FCC regulations limit actual power input of Citizens Band transmitters to 5 watts. With the popular Mosley A-311 three element beam you can achieve a legal effective power input of 40 watts. (Note: 9 d.b. signal gain of the A-311 gives you a power gain of approximately 8.) Write Dept. CBH22 for complete specifications.

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List $46.88

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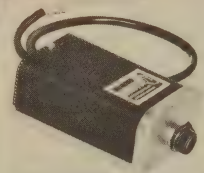

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"NOISTOP" ELIMINATES IGNITION INTERFERENCE CAUSED BY NEARBY CARS AND TRUCKS... boosts range and performance by letting you hear signals normally lost due to ignition interference!

Thousands in use by CB'ers throughout the country! Prevents receiver jamming from trucks, cars, outboard motors, or other nearby source of pulse-type electrical noise! No need to suppress your car—ideal for base station use. $16.95 NET

Completely wired, tested and guaranteed. Installs in 20 minutes.

DETAILED INSTRUCTIONS FOR:

EICO 761, 762	KAAR TR-32
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HEATHKIT GW-10	UTICA MC-27
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JOHNSON "Messenger"	WEBSTER 4-11

See your distributor, or write to:

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FIFTEENTH CALL AREA: CCM Spencer Van Noy, 15W-1894, 632 East 3900 So. Salt Lake City 7, Utah.

Denver has a new club comprised mostly of personnel from East Denver and Aurora. The majority of the members are men that are stationed here at Lowery AFB either going to school or as permanent party. We encourage these men to join the club for we feel that it gives them a feeling of belonging and it makes their stay here in Denver is more enjoyable. Anyone being transferred to Denver, Colorado and is interested in joining the club should contact either Mr. Earl Bradley 24Q0112, 1350 Poplar Street or Leo N. Evans 15Q-0356, 138 Acwron, Buckley Angb, Denver 30, Colo.

SEVENTEENTH CALL AREA: CCM Lawrence J. Woods, 17W5910, 1735 Michigan Dr. Evansdale, Iowa. ACCM:Pete Davis, 17Q2669, Dunkerton, Iowa, Jim Leversee, 17W3361, Janesville, Iowa.

Received letter from Bob Fowler 17Q0651 of Omaha, Nebraska. He stated; the Greater Omaha CB Club with a membership of about 75 held an election of officers. Dean Dunn, 17W0999 and his wife Doris were elected Pres. and Treas., respectively. Mel Trimmer, Lou Ishii, Bob Conley were elected Vice Pres., Sec., and Sgt. at Arms, in that order.

The N. Central Kansas CB Club was organized at Smith Center, Kansas. On Feb. 4th a fire destroyed almost all personal belongings of Gordon and Dorthy Altland, 18W4474 of Independence, Iowa. Gordie is former Sec. Treas. of N.E. Iowa CB Club. CB'ers in this area got together and took up a collection of clothes, money and food; and it can go without saying, everything was greatly appreciated by Gordie and Dorthy. Mrs. Nancy Leversee, Mrs. Ellis Grammenz and Mrs. Pete Davis had a great deal to do with starting and collecting the donations.

EIGHTEENTH CALL AREA: CCM D. C. Wolcott, 18A-483, R.F.D. 1, Cedar Rapids, Iowa ACCM Thomas Gilliams, 18QA1868, 1426 Uhlhorn St., Evansville, Ind.

The meeting of the CRCRC was held at the Municipal Airport in Cedar Rapids. The Club has approximately 65 members, and seems to be increasing all the time. The XYL's have taken a great interest in the membership and it has given the club a great boost, helping in the entertainment and program directing.

Our dream of a Club newspaper finally came true. The first edition came off the press Feb. 1, 1962, and will bear the name of "QRM". Editors are Mike Fiesler KHA0804 and Ed Carpenter 18Q7952, co-editors are Frank and Joyce Hall 18QA0394, and Hettibel Carpenter 18Q7952-U2.

The Evansville CRL installed their new Board of Directors at the Jan. meeting. Shirley Curl, 18W7306 Chm: Joe Curl, Sec-Treas. 18B2038; Tom Gillians 18-QA1868; Robert Wheeler, 18Q2102; Tom Hendricks, 18Q7420. We have a well planned program for this year. We monitor channels 7 and 9, and any one passing thru Evansville, will be given directions and information on those channels. Next month we will have **SOMETHING UNUSUAL** to report. We hope to do something that has never been done in this part of the country. We hope that other clubs will be able to do the same. Watch for next months report.

NINETEENTH CALL AREA: CCM Carl Wesser, Jr., 19-W6285, P. O. Box "V", Presque Isle, Michigan.

On February 7th, the Top of Michigan CB Association held their second meeting since reorganizing, and election of officers was held. Jim Tolin, 19Q5905, Alpena, Michigan, was elected President. Chet James, 19Q2145, Hillman, was elected Vice President. The Secretary-Treasurer slot was filled by Carl Wesser, 19W6285, Presque Isle, Michigan. We now have 32 active members all of which monitor Ch. 15 for calling only, and we use 5, 11, and 13 as communication channels.

Hank Solocinski, 19Q4225, was very glad for the common monitoring channel. When he was on a service call, he slid into a ditch approximately 5 miles from the nearest phone. His call was picked up by 19Q5905, Shirley, 19QA0441, Frank, and 19A5006, Dee, who called by phone and got help to him within a half hour. This all took place in the last big snow storm in which we got 13" of heavy, drifting snow.

The Alpena Auxiliary Police, 19Q1042, 65 members strong, have given George Suszek, Alpena, Michigan, the pleasant task of attending all T.O.M.C.B.A. meetings. The Club will give local Authorities our full assistance when needed. We are indeed pleased to have such a progressive unit as the Auxiliary Police join in with us.

The T.O.M.C.B.A. wishes to thank Rienke Real Estate, 19A5243, for reliquishing Channel 15 which they formerly used as their working channel, and they now honor our Channel 15 monitoring setup. This is very much appreciated by all.

10-7

T.K. on C.B.

By TOM KNEITEL, 10Q3161

Greatest Thing since the Edsel?

Many of you were probably interested to hear about Raytheon's RAY-TEL CB units being offered as optional equipment on all 1962 Ford, Mercury and Lincoln passenger cars and Ford trucks.

This may or may *not* be as big a boon to all of us as you might imagine, it depends upon how several variables turn out. Since this will affect all of us, let's take a look at them.

"Joe Car-buyer" walks into his local Ford dealer "Wanna buy a Fodd," he says. After the usual tire-kicking and the dealer's hasty note scribbling, Joe says, "Sorry, I changed my mind."

As he gets back into his 1952 model in the parking lot our salesman comes a-runnin'—now he's shouting, "I'll trow in a two way raddio!"

"A two way radio? I don't want one and I don't know how to work it!"

"No, lissen bud, all you do is push a button and you can talk to your wife from your new car. You can talk to all sorts of people who own new Fords too—if you're lucky you might even speak to a new Lincoln now and then!"

"What colors do they come in?"

"They only come in one color, bud, and we install de raddio for nuttin' "

"Well—OK, but you gotta show me which button to push."

Several days pass—our dealer has installed the CB radio in the new car (no mean job for a car salesman). Joe is here to pick up the unit. As he "revvs-up" the motor on his new dream boat the salesman tells him, "By the way, you won't be able to use the new radio for 90 days when your license comes through."

"Yeh," says Joe as he roars down the street making like Brod Crawford in his patrol car, "Hello Sadie, do you hear me? 10-4! 10-4! I toldja I'd be on de radio!"

Obviously, the above example isn't what's likely to happen in all cases—but it could happen, and is a good possibility in many instances.

We understand that Raytheon is having their field force instruct the car sales people on how to install CB rigs, however we have some misgivings as to the ability of car dealers to properly install a CB rig. Can they measure SWR, will they be able to de-QRM an ultra-noisy Ford (Fords are notorious for ignition noise), what happens when the set needs service, will they know which crystals to stock? These and other questions have been raised.

Next, will they want to spend the time and effort to explain that the proper use of CB radio includes a base station which must also be installed. Will the car salesman want to go to the effort of selling and installing the base station?

Who will help Joe fill out his Form 505? Who will keep him off the air until the license is issued? What will happen if the application bounces—(as almost 50% do some months) will the set be taken back? It seems to us that this system has taken CB radio, in this instance, away from the user having a need for communications, and placing it in a category of the user needing a little more persuasion to buy a car. *If he can't show the FCC a definite need for CB radio he won't get a license—and he won't find it out for months after he buys his set!*

Then we have a problem of an unethical car salesman who implies that a

CB rig will give the prospective car owner service which approximates the Bell System mobile radiotelephone service—which costs $50 to install and a minimum of $32 per month to use. The person who gets this pitch is going to be pretty sore when he finds out that his $189.50 has bought him what, in his eyes, will probably amount to a novelty or toy.

Now then, who will instruct the new car-owner on operating procedures? Who will tell him about "NATCH-9"? Who will tell him about the courtesy and cooperation CB'ers voluntarily impose upon themselves—you know, the stuff that's *not* in Part 19.

What will happen if he decides to get a new car in two or three years? When he sells the car or trades it in will he cancel his license? Will he know that when he sells his car he is not allowed to transfer his CB license to the new owner or let the new owner use his CB callsign?

This leaves us in sort of a "where do we go from here" spot. There are several possible answers.

For one thing, CB needs a lot more national publicity—I mean that it is going to take a few articles in LOOK MAGAZINE, READERS DIGEST, etc., and a few more TV shows (the 77 SUNSET STRIP publicity turned out to be a disappointment) to hawk its benefits. If you walk up to 100 strangers and ask them what CB radio is, 95 of them won't know what you're talking about. Possibly if the general public was a bit more aware as to just what CB is (and isn't) there wouldn't be as much confusion as we expect there is going to be.

Next, I feel that local CB service shops should *immediately* contact their l o c a l Ford Company dealers and huddle with them on the questions we have asked in this editorial. Possibly the Ford dealers would be willing to let the CB dealer do the complete sales/installation/maintenance of the CB aspect of the car sale. The only sales commission needed for this deal to be interesting to the CB dealer would be the chance to sell and install the base station.

Then, of course, the CB dealer who found that this was a workable arrangement might try to sell other brands of CB equipment through non-Ford dealers.

We admire Ford for thinking up a new way to sell cars, and Raytheon for a new and novel way to sell CB sets—lest we forget that there is a commission involved other than the *sales* commission, it's the Federal Communications Commission!

This will undoubtedly put an additional work-load on the FCC's already overworked CB license processing department—longer wait for our licenses. It will possibly mean increased policing of 11-meters, stricter rules, harsh licensing requirements, and so on.

Possibly we are getting excited over nothing. We just called every Ford dealer in town and not one of them had any idea of what the whole thing was all about.

At any rate, where do we go from here?

10-7

CB'ers—Increase Your CB Talk Power 4-Times!

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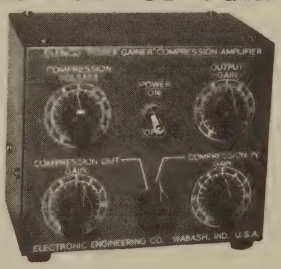
- Use With Mobile Or Base!
- Many CB'ers Report 50-100 Percent Increased Range!



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"The ELENCO Audio Compression Amplifier gives a four times increase in talk power." Like going to 20 watts input! Yet the rig input remains at 5 watts, and modulation at or below 100 percent.

Small, compact—only 5" x 6" x 4"; weighs 3 pounds.

The ELENCO Power Gainer
Only $45.00

Order Direct From Factory or See Your Local CB Equipment Dealer

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ANTENNA SWITCH—Operate one CB on two antennas, or 2 CB's on one antenna. Attractive stainless steel. Takes PL-259 plugs. Net $7.95. ROKO Products, Inc., Box 3766, Baltimore 17, Md.

FOR SALE—Two Hallicrafters CB-1 in original sealed cartons. Single channel base units. $79.95 each, plus transportation. C. Peyton, Box 683, Marietta, Ohio.

CB'ERS DUAL CONVERSION ADAPTER KIT, all parts, schematic, pictorial; hear only the channel you tune. For HE-15, 15A; TR-800, 910, etc. $14.95, with tubes $16.95. For HE-20, 20A; Mark VII $15.50, with tubes $17.50, or $5.00 deposit plus C.O.D. Bainbridge Radio, 2649 Bainbridge Ave., New York 58, N. Y.

MODULATION BOOSTER—It's New! It's Terrific! As much as DOUBLES your transmit and receive range with no violation of FCC power requirements. Compact — Easy to install, with instructions. Net $14.95. Dealers write: ROKO Products, Inc., Box 3766, Baltimore 17, Md.

WANTED! U.S. and U.N. stamps and covers. Will trade electronic parts and tubes. George Beyers, 10W0376, 3213 N.W. 22, Oklahoma City, Okla.

CB'ERS—SPECIAL 5-minute sand type timer, +15 sec. accuracy. Full 3½" high, red and white trim. 89c including postage. No COD or stamps please. F&S Electronics Service, 200 Maple Avenue, Graterford, Pa.

SUPER SQUELCH & NOISE ELIMINATOR will eliminate most ignition noise from your mobile unit and other cars in traffic. Johnson, Heath GW-10, Sonar, Lafayette and others. State set and voltage. Units are tailored for each set and will NOT work efficiently on other sets. Price $12.50. Preamplifiers—Heath GW-10 $9.50. Electronic Enterprises, Box 86, Brookline Station, Missouri.

C.B. WPE QSL CARDS, Finest quality, multicolor; 10c for samples. Radio Press, Box 24A, Pittstown, N. J.

HIGHEST GAIN, lowest noise RF preamp for Heath GW-10. Cascode nuvistor (two stage!) circuit boosts receiver up to 300%. Proven on hundreds in New England area. Build your own —$2.50 for complete plans. Wired $20.95. Raydar, Box 363N, Farmington, Conn.

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LAFAYETTE HE-15, 15A. Plug-in crystal receive converter. No wiring. No more station hunting. Always tuned to your channel. Switches from tune to crystal receive, 3 positions. $10.95 with one crystal, specify channel. F. Abate, P.O. Box 206, Pompton Lakes, N. J.

QRM KILLERS—Sprague "Filterol #2" power line filters—crush incoming power line noise, outgoing CB-TVI. Also attenuates ignition noise when used in mobile rig. Check any catalogue, they're $8.70 net—our price ONLY $1 each, or 2 for $1.50, while they last. McCart Electronics, 2204 Downing, Oklahoma City, Okla.

CB GOODIES. Illustrated list 10c. 1Q5226, Lee-Deck, Box 105H, Westfield, Mass.

CITIZENS BAND! Maximum quieting with OZCO "Snoozer." Largest selling add-on squelch still only $2.00 each, $3.95 pair postpaid! OZCO, Canaan 3, Conn.

BARTLETT AUTO GENERATOR NOISE FILTER eliminates the noises at the source, on the generator. It is PRE-TUNED with instruments to CB frequencies and sealed against moisture, oil, and dust. Small in size, efficient in operation, instruction sheet enclosed. $3.00 postpaid, or see your dealer. Distributors: Radio Products Sales Inc. Los Angeles/Audiotronics Corp., Philadelphia, Pa. Mfg: Ben N. Bartlett, 1815 W. 85th St., L.A. 47, Cal. 11W5582

CB CLUB MEMBERS—We sell our CB testing equipment at special discount rates to clubs! Write for details today! H&L Electronics, P.O. Box 125, Medford, Ore.

SK-3 RF PRESELECTOR kit increases sensitivity of GW-10 at least 3 "S" units. Wire and install in one evening without cutting GW-10 wiring. Inconspicuously mounts on transceiver; extends 1½" rearward. High-GM tube, all parts, complete instructions included for $8.99 (postpaid). Holstrom Associates, P.O. Box 8640, Sacramento 22, Calif. (GW-11 owners and others, inquire)

CB QSL! C. Fritz, Box 1684, Scottsdale, Ariz. for the famous RAINBO CALLS, many others! Samples 25c (deductable).

VOCALINE 27DM 6/12/110V $100. Globe CB-100 $60, RME Walkie Talkie $45, Heath CB-1 $35. All excellent. Krzak, 65 Main, Pawtucket, R. I.

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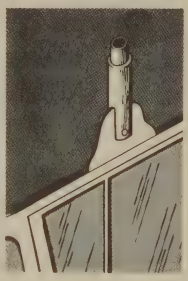
(Continued Next Page)

Question: *"How can I mount my mobile CB antenna at the car roof level for maximum gain and mobile coverage—without drilling holes in my car top?"*

Answer: *"Use the new "GUT-R MOUNT" from McCullough-Aero. It's the economical answer to vastly improved mobile communications — possible only when your antenna is mounted at or above the car's roof line!"*



Here is a remarkable new mobile antenna mount from McCullough-Aero Corp., the same company that developed the famous "Mobil-Plane" attachment for CB antennas. The "G U T - R MOUNT" attaches easily and quickly to your car's rain gutter. Any standard 3/8" 24-thread whip mounts on the "GUT-R MOUNT" in just seconds. All steel and aluminum construction, ruggedly built to take a tremendous beating! Before you purchase any new antenna mount—or if you just want better mobile coverage with a roof-top antenna —investigate the "GUT-R MOUNT" from McCullough-Aero Corp. Just $8.95 postpaid, or send $2.00 and your "GUT-R MOUNT" will be shipped C.O.D.

Mobil-Plane MP-1

Tested and reported on in the February issue of CBH (page 30). You can increase your relative field strength by 50-100 percent with this simple to attach capacity hat from McCullough-Aero. Make your mobile the loudest on channel. Hear more stations, work greater mobile to mobile distance. Easy to install, fits all 102-inch, top and center loaded whips, or with adapter sleeves for fiberglas and small diameter non-standard whips. Model MP-1 brings 50-100 percent increased efficiency. Model MP-6 delivers 100 percent or better increase in efficiency.

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ELECTRONICS DIVISION

McCULLOUGH-AERO CORPORATION
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☐ Rush me "Gut-R Mount", $8.95 Enclosed
☐ Rush me "Mobil-Plane" MP-1, $5.95 Enclosed.
☐ Rush "Mobil-Plane" MP-6, $7.95 Enclosed. My antenna is (specify if not 102" std. diam. stainless steel whip) _____
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CB - WPE - QSL CARDS—Samples ten cents, with catalogue twenty-five cents. Brownie, 3W1974/W3CJI, 3110C Lehigh St., Allentown, Pa. Order yours from Hamdon's leading QSL printer since 1939.

TIME PAYMENTS ON CB EQUIPMENT arranged quickly and easily. Write to us with items wanted and we will quote prices. 12 to 24 months to pay. Less than 10% down. Buy from CB specialists. House of Sound (2Q5351), 2119 Starling Ave., New York 62, N.Y. SY-2-1234

DEALERS! We made a sharp buy and can share it with you. 6AQ5, 6AK5, 6J6 tubes at LESS THAN MFRS. COST. These are ruggedized, long-life versions pulled from brand-new unused missile equipment and computers. 50c each, or any 12 for $5. McCart Electronics, 2204 Downing, Oklahoma City, Okla.

MOTOROLA Transmitter Model WET30V, and receiver Model FMR13V, 30-50 mc, less crystals, for 6-volt operation. $75.00 complete with tubes. C. Bernard Smith, 39 So. Greenwood Ave., Pasadena, Calif.

NUVISTOR . . .

(*Continued From Page* 32)

proper value as chosen from the data above.

Now that we are all equal it is time for "the Moment of Truth." Fire up the rig and connect your antenna as usual. Local stations should be quite a bit stronger and the weak stations should be near local. 10-7

EXECUTIVE 100 . . .

(*Continued From Page* 42)

if your voice is loud the automatic limiting results in distortion. The Exec is immune to these problems. Reserve gain is provided so that if your voice is low you crank up the volume control; if your voice is a "window rattler" you crank the control down. In all cases if you adjust the volume control until the modulation indicator flashes, you will be assured of high level, clean modulation.

A three way power supply is provided which operates off either 6 and 12 volts DC or 117 volts AC.

Our Conclusion

A well made and flexible unit giving excellent all-round performance; well suited for both hobbyist and professional use—particularly where maximum communications effectiveness must be obtained. 10-7

BEFORE WE SIGN OFF

D. C. FLASHES!!

By REX HOLMES, 24W2424

WHAT ABOUT PHONE PATCHES?

An article appearing in the February issue of CB Horizons prompted a number of CB'ers to inquire of the FCC, "can we use ham type phone patches with our CB installations?"

As the article pointed out, phone patches are electronic devices which couple your receiver and transmitter to the standard telephone lines, or to inter-office intercom lines. The unit is designed to take the signal from the phone or intercom and modulate your transmitter carrier, allowing the person speaking from the phone to talk directly to the mobile or base station you are in contact with.

The February article in *CB Horizons* mentioned only connecting intercom or inter-office phones into your CB transceiver. Interested CB'ers however wondered, of the FCC, "can we run our *Bell* circuit telephones into phone patches, thereby putting our telephones into use as a means of directly connecting mobile CB transmitters with land-line non-CB persons and businesses?"

The Commission wasted no time in making public an answer to the question, and we thought you might be interested, in case the phone patch idea appeals to you.

Said the Commission "our rules contain no specific provision for, *or prohibitation against,* the connection of Citizen Radio station equipment to commercial telephone facilities."

"However," the Commission went on, "the tariffs of the various telephone companies on file with the Commission, which govern the provision for interstate and foreign message toll telephone service, provide that no equipment, apparatus, circuit or device not furnished by the telephone company shall be attached to, or connected with, the telephone facility of the company, either physically, by induction or otherwise, with certain exceptions which *do not* include citizens radio equipment."

This is not to rule out such connections, however, as the Commission pointed out that *if* the telephone company in question, which owns the equipment the phone patch would be working into, *should allow you* to operate a phone patch, "the unit may not be used for the exchange of communications which are not directly concerning the business or personal activities of the licensee of that radio station unit."

In other words, the Commission has *no* objection to phone patches provided the telephone company does not, and providing you use the phone patch to (*for example*) connect your brother (who is mobile) with your mother (who is on the land-line some distance away and without a CB set) through your CB set, and the conversation concerns all three of you, your mother, brother and you!

Another example would be a business CB installation where you want to place one of your mobile units directly in touch with a customer who has telephoned in to your main office where your CB base station is located.

In case you are worried about the telephone company granting you *permission* to use a phone patch, *don't;* They won't. The hams tried it some years ago, to wit the phone company tried to bring legal suit against a few of our higher powered friends. The hams raised such a fuss that the phone company silently turned its head the other way and today an estimated 10,000 hams have phone patches and the phone company just pretends they are not there!

10-7

LAFAYETTE is America's Citizens Band Headquarters

NO LICENSES, TESTS OR AGE LIMITS

9 LAFAYETTE TRANSISTOR *CITIZENS BAND* "WALKIE TALKIE"

39.95
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NO MONEY DOWN

● Completely Wired—Ready to Operate ● Fully Transistorized—9 Transistors plus 1 Diode ● Uses Inexpensive Penlight Batteries ● No License, Tests or Age Limits ● Comes with Leather Carrying Case, Earphone, Antenna, Batteries and Crystals

As simple and easy to use as the telephone—and twice as handy. Receives and transmits up to 1.5 miles under average conditions. Weighs only 18-oz. and slips into your pocket. Push-to-talk button operates built-in speaker as sensitive microphone.

LAFAYETTE HE-20A Citizens Band TRANSCEIVER

● Pi-Network for Greater Power Output ● Calibrated "S" Meter ● Series Gate Noise Limiter ● Tuneable Superhet Receiver over all 23 Channels ● 4 Crystal-Controlled Transmit Positions ● 4 Crystal-Controlled Receive Positions ● Dependable Push-To-Talk Ceramic Microphone & Relay ● Illuminated Dial ● Built-in 12-Volt Power Supply ● Complete with Matched Crystals for Channel 9

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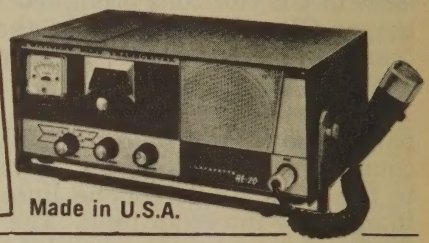

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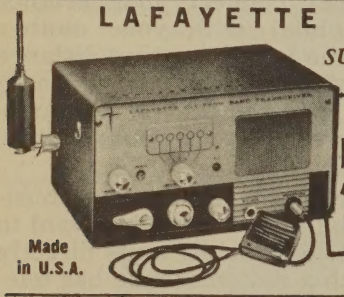

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A compact, precision transmitter and receiver covering up to a 20 mile or more radius, depending upon conditions. The HE-15A features an effective full-wave variable noise limiter, planetary vernier tuning. RF and, microphone jack on front panel, 12 tube performance from 4 dual-function tubes, 2 single-function tubes, 2 rectifiers.

HE-19	Telescoping Whip Antenna	Net 3.95
HE-16	Power Supply for 12 Volts	Net 10.95
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The Scoop Buy for Citizens Band Mobiles

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HE-800WX

● Chrome Swivel Base ● Stainless Steel Spring ● 102½" Stainless Steel Whip for Optimum 11-Meter Performance

Chrome swivel ball mount base designed for mounting on any surface. Stainless steel spring holds rod in properly adjusted position and prevents rod damage from shocks and blows. Stainless steel whip for maximum resiliency and strength.

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PERSONAL *Messenger*

• No license required—may be used at once! • Meets FCC requirements for use with licensed Citizens' Band stations, too!

This is the new "Personal Messenger"—a superbly engineered 2-way crystal-controlled transceiver so compact it fits in your hand—so flexible it can be used in thousands of applications! 11 transistors and 4 diodes—superheterodyne receiver with exclusive tuned R.F. amplifier gives you twice the sensitivity and *more than 40% more range than units with conventional circuitry! Powerful two-stage transmitter delivers more power output than similar units with the same rated input!* Unmatched audio intelligibility and razor-sharp voice reproduction—automatic noise limiter—automatic volume control—positive squelch control—elastic hand strap—operates on penlight or rechargeable nickel-cadmium batteries.

$109.50

ILLUSTRATED AT LEFT—The Viking "Messenger"—maximum legal power Citizens' Band crystal-controlled transceiver. Excellent receiver sensitivity and selectivity—highly efficient transmitter punches your signal home! Built-in squelch—AVC—ANL. With tubes, push-to-talk microphone and crystals for 1 channel.

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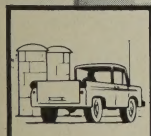

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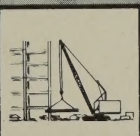

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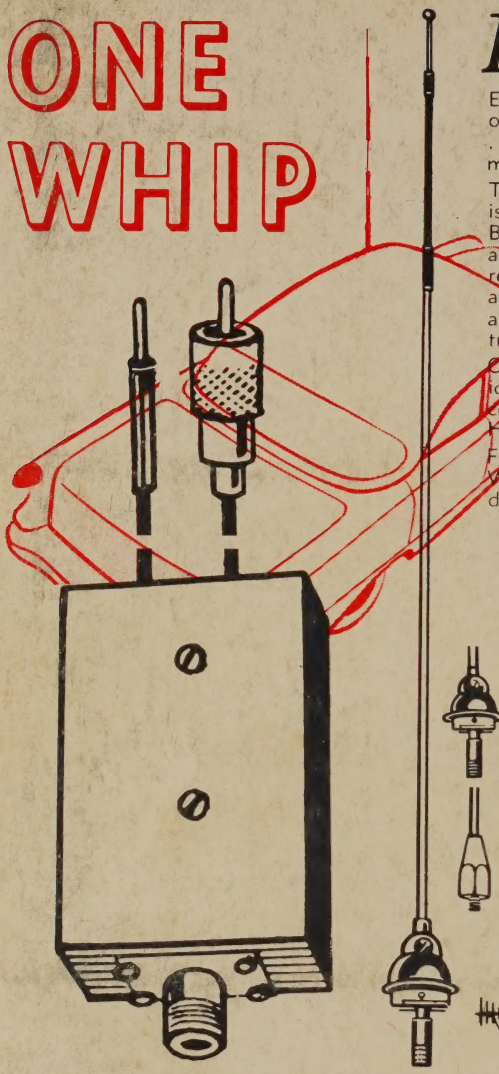


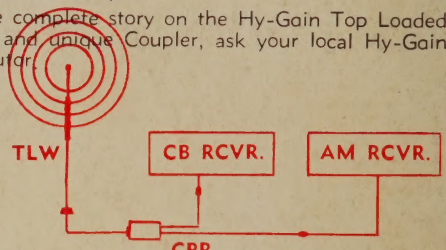
Both AM & CB

Eliminate the forest of whips on your car . . . use one whip to receive both AM and Citizens Band . . . utilize the ideal whip location on your automobile without drilling additional holes.

The Hy-Gain Citizens Band Coupler is an unique isolating network allowing the use of any Citizens Band antenna for CB transmission and reception, as well as AM reception. It is supplied with SO-239 receptacle for your CB antenna, 2-foot lead with automotive type plug for your broadcast radio, and a 2-foot lead with PL-259 coax plug for your CB transceiver.

One of the Hy-Gain Top Loaded Whips makes an ideal substitution for your present AM whip. Receive both CB and AM broadcast by utilizing the Hy-Gain CPR Coupler.

For the complete story on the Hy-Gain Top Loaded Whips and unique Coupler, ask your local Hy-Gain distributor.



TLW-M: with chrome-plated, single hole, top mounting body mount.

TLWT-M: identical to TLW-M but in three sections for telescoping down to 28"

TLW: with standard 3/8"x24 threaded base stud for use with adaptive mounts.

TLWT: identical to the TLW but in three sections for telescoping down to 28"

hy-gain antenna products

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